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## Health Behavior in International Student-Athletes

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# HEALTH BEHAVIOR IN INTERNATIONAL STUDENT-ATHLETES

by

ALISON ADAMS

(Under the Direction of Christina Gipson)

## ABSTRACT

International student athletes (ISAs) are a unique population that must overcome challenges associated both with being an international student that must adjust to a new culture as well as with being a student-athlete that must balance the intense responsibilities of athletics and academics (Bradley, 2000; Bentzinger, 2016). These challenges include the increased likelihood of injury and the subsequent need for health care. Athletic trainers serve as the link between student-athletes and the medical community and are responsible for coordinating health care for student-athletes. In order to provide high-quality care, it is important that they understand the unique values and experiences of each athlete (Unruh, 1998). Therefore, the purpose of this study was to examine how cultural factors and past experiences impact health behavior in ISAs. This study was conducted using semi-structured interviews guided by a framework adapted from the Health Traditions Model and The Theory of Health Lifestyles (Spector, 1979; Cockerham, 2012). Participants in this study included a convenience sample of 13 ISAs participating in Division I athletics at Georgia Southern University. Findings revealed that ISAs come from a variety of backgrounds, but all participants grew up with families that provided them with the support they needed to develop into competitive athletes. Most ISAs moved to the US for the opportunity of pursuing an education while continuing their athletic career. When competing in collegiate athletics, ISAs develop a fear of becoming injured. This is driven by the threat of lost playing time, which ISAs fear jeopardizes their ability to earn a scholarship, as well as the need to navigate a health care system with which they are unfamiliar. ISAs lack an understanding of

the health care system and hold the perception that American health care is unaffordable. The fear of these consequences of injury serve as a source of anxiety for ISAs. In conclusion, ISAs experience anxiety surrounding the consequences of injury. It is the responsibility of athletic trainers to understand these fears and provide ISAs with the guidance necessary to receive the health care they need.

INDEX WORDS: International student-athletes, Athletic trainers, International student-athlete health.

HEALTH BEHAVIOR IN INTERNATIONAL STUDENT ATHLETES

by

ALISON ADAMS

B.S., The Ohio State University, 2018

A Thesis Submitted to the Graduate Faculty of Georgia Southern University

in Partial Fulfillment of the Requirements for the Degree

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS .....	2
LIST OF TABLES .....	5
LIST OF FIGURES .....	6
CHAPTER	
1 INTRODUCTION .....	7
2 REVIEW OF LITERATURE .....	11
International Students .....	11
Immigrant & International Student Health .....	14
Health Care Systems in Other World Regions .....	20
Access to Resources in Developed vs Developing Countries .....	25
Sporting Models Throughout World Regions.....	26
International Student Athletes.....	27
Injury Among College Athletes .....	30
University Health care: The Role of the Athletic Trainer.....	32
Conclusion .....	35
3 METHODS .....	37
Methodology.....	37
Participants.....	41
Instruments.....	42
Pilot Study.....	45
The Researcher as an Instrument .....	46
Procedures.....	46
Analyses.....	47
4 FINDINGS AND DISCUSSION.....	48
Sociodemographic Factors.....	48
Culture.....	53
Life Chances .....	64
Habitus .....	71



Life Choices .....	81
5 CONCLUSION.....	94
Implications for Future Research.....	98
Limitations .....	98
REFERENCES .....	100
APPENDICES .....	111
APPENDIX A: INTERVIEW GUIDE .....	111
APPENDIX B: INFORMED CONSENT.....	113
APPENDIX C: PARTICIPANT RECRUITMENT EMAIL.....	115
APPENDIX D: IRB APPROVAL FORM.....	116
APPENDIX E: LETTER OF CONSENT FROM GSU ATHLETICS.....	117

## LIST OF TABLES

Table 1: Interview Guide Questions .....	43
Table 2: Sociodemographic Factors.....	49

LIST OF FIGURES

Figure 1: Adapted Framework.....41

## CHAPTER 1

### INTRODUCTION

International student-athletes (ISAs) in the United States are a unique population that face many challenges as they balance the intense pressures of collegiate athletics while simultaneously navigating a new culture as international students. An ISA is defined as “a person who is not a citizen of the United States who is in this country on a temporary basis and does not have the right to remain indefinitely and who is also a varsity athlete at an NCAA institution” (NCAA, 2020 section 3). ISAs choose to participate in athletics in American universities for a variety of reasons (Popp et al., 2009). One major reason is the pursuit of higher education and the ability to further an athletic career, which is an opportunity that is not available in many other countries (Bentzinger, 2016). Since the start of recruitment in the 1950s, ISA participation in intercollegiate athletics has continued to increase (Ridinger & Pastore, 2000). As this unique population continues to grow, it is important for those tasked with supporting ISAs to develop a thorough understanding of the experiences they encounter (Vadopalaitė-Witt, 2019).

While the ISAs are unique, they do share many experiences with immigrants and international students. They are provided access to health care through athletics similarly to immigrants who receive health care benefits through work. ISAs must also adapt to a new education system while being away from home for the first time, similar to international students (Bradley, 2000). Adjusting to this new culture and education system pose ISAs with several challenges, including overcoming language barriers, learning new academic structures, mental health issues, and known health disparities that are exacerbated by decreased health care seeking behavior (Bradley, 2000; Sherry et al., 2009; Msengi et al., 2011; Austin, 2013). These cultural adjustments serve as one of several challenges faced by ISAs, as they must also adapt to the pressures of collegiate athletics. Their role as student-athletes require to balance academics with

the pressures of being an athlete. These responsibilities include understanding NCAA rules, intense practice schedules, and an increased injury risk due to the physical demands of sport (Newell, 2016; Safai, 2003). Depending on the accessibility of health care and sports medicine in their home country, ISAs may have varying levels of awareness of the care available to them while participating in collegiate athletics and how to pursue it.

Participants' ability to navigate the American health care system may be affected by their experiences with health care in their home countries. The ability to access health care falls under what Cockerham (2012) refers to as life chances, or *opportunities available to an individual that enables them to obtain a particular lifestyle*. Differences in the available health care resources and the process of accessing them may lead to ISAs having difficulty receiving care in the US. The American health care system consists of primarily private health care providers that require insurance policies. These providers are able to provide high-quality care, but services usually result in high costs (Carmen et al., 2015). These high costs are covered by insurance policies, which come in several different forms (Mossialos et al., 2017). Previous research has shown that confusion surrounding insurance coverage and high health care costs has prevented international students from receiving the health care they need (Adeboyega, 2020). In addition to the cost of health care, there are a variety of cultural factors that can impact health care outcomes.

Interaction with health care may also depend on culture, which Spector (1979) defines as *characteristics that are passed down from one generation to the next*. Cultural factors that have shown to impact health care decisions include religion and family roles. Religious beliefs may lead to differing viewpoints regarding the causes of illness and therefore may affect an individual's perspective on the appropriate treatment (Rumun, 2014). Additionally, family values may play a role in health care decision-making. In certain cultures, such as Latino, rural African,

and Asian, health care choices are often made by the entire family, and not just the sick individual (Corona et al., 2017). Religious, family factors, perceived discrimination, language barriers, and previous experiences with health care can all affect the way international students interact with health care providers (Singleton & Krause, 2009).

These cultural factors combine with life chances to form participants' habitus, which Cockerham (2012) defines as *a cognitive framework that guides an individual's decisions*. This habitus consists of the various factors that ISAs take into consideration when interacting with the health care system. It is important to acknowledge how these factors influence health care decision-making because the nature of athletics predisposes ISAs to need health care. Research has shown that nearly all student-athletes experience injury at some point in their playing careers (Nixon, 1996). When student-athletes are injured in sport, they rely on athletic trainers to provide and coordinate health care.

Athletic trainers are encouraged by the NCAA to provide patient-centered, culturally competent care that takes each individual athlete's values, needs, wants, and goals (NCAA, 2014) into consideration. When working with ISAs, this requires athletic trainers to understand all of the various factors that impact interactions with health care, including previous experiences and cultural values. In order to ensure that ISAs' medical needs are being met, it is important for athletic trainers to understand the individual wants, goals, and circumstances, and past experiences of ISAs. Therefore, the purpose of this study is to examine how cultural factors and past experiences impact health behaviors in ISAs. By understanding how differences in culture and past experiences can impact attitudes towards care, athletic trainers will be better-equipped to provide patient-centered, individualized care to ISAs.

Many of the experiences that ISAs experience will involve unique interactions with health care providers and as such, it is important to understand and hear the voice of the individuals. A key technique to hear the voice of the intended population is to conduct semi-structured interviews. Therefore, this study will be conducted using semi-structured interviews guided by a framework adapted from Spector's Health Traditions model and Cockerham's Theory of Health Lifestyles. The goal of this study was to develop an understanding of how cultural factors and previous experiences with health care contribute to ISAs' decision to seek and comply with health care.

## CHAPTER 2

### REVIEW OF LITERATURE

#### **International Students**

International students are students who chose to pursue an education in a country other than their own. The number of international students in the United States has increased by 98% since the start of the 20<sup>th</sup> century, with over 570,000 international students attending universities in the United States (Snyder et al., 2018). This increase is thought to be the result of increased globalization and increased demand for higher education from abroad (Msengi et al., 2011; Bound et al., 2020). The increase in international students has created positive changes within American universities, such as contributions to university economies, increased diversity, and intellectual contributions via research (Leong, 2015). Although international students bring diversity to campus communities, they are often met with challenges while adjusting to life in a new culture.

Scholars have identified a number of challenges international students face when adjusting to a new culture including mental health issues, language barriers, and difficulty adapting to a new education system (Bradley, 2000; Poyzrali & Grahame, 2007; Sato et al, 2011). One issue that has been highly researched is mental health issues while trying to navigate culture shock (Bradley, 2000; Forbes-Mewett & Sawyer, 2016). Assimilating into a new culture means international students must adapt to different values, different interpersonal relationship patterns, and different communication patterns (Wu et al., 2015). This “culture shock” can lead to loneliness, isolation, and homesickness (Bradley, 2000). Similarly, Constantine and Osaki (2006) suggested that poor experiences of mental health are often linked to adjustment factors such as language barriers, financial stress, and feelings of loneliness and isolation. Another major



challenge many international students face is a language barrier. Multiple studies have found that despite having English-speaking experience and having passed an English placement test, international students reported that their English-speaking skills served as a barrier to adjustment (Sato et al., 2011; Sherry et al., 2009). International students have described difficulty understating English slang used by both professors and American students (Sherry et al., 2009; Poyzrali & Grahame, 2007). Furthermore, language barriers make it difficult for international students to read, write, and speak English, which makes it difficult to meet the standards of American professors and can negatively impact grades (Sato et al., 2011). International students in a study by Poyzrali & Grahame (2007) described difficulty taking notes while listening to English-speaking professors. Not only must international students overcome language barriers, but they must also adapt to a new education system.

Often reported is international students' struggle to adjust to the American education system, which emphasizes consistent homework and multiple-choice tests. International students felt this structure required more personal accountability and time commitment outside of the classroom than that of higher education in other countries (Sato et al., 2011; Abel, 2002). Ladd & Ruby (1999) emphasize the need for American professors to adapt their teaching styles in order to better meet international student needs, as international students often have different learning styles than American students due to differences in prior education for both groups.

Another challenge includes decreased social support, which has shown to be a significant factor in international student adjustment (Hechanova-Alampay, 2002). Decreased social contact in a new country has shown to increase international students' degree of depression, anxiety, and alienation (Ladd & Ruby, 1999). Supporting this idea, Poyzrali et al., (2004) found international students with more social support had less difficulty with adjustment. A study by Menzies &

Baron (2014) showed that international students who joined student groups and developed friendships reported improved experiences. Social networks are one method of support that has been shown to improve international students' adjustment to the United States.

Due to the many sources of stress associated with learning a new culture, it's important that international students receive the support they need to make this transition. Lertora and colleagues (2017) recommend that this support take into account not only the transitional challenges they face, but that due to cultural stigmas, some international students may not be comfortable asking for help when they need it. Therefore, it is important for university administrators to make an effort to understand the needs of international students (Lertora et al., 2017). Support for international students struggling with adjustment is often provided by the university's office of international affairs or office of international student retention (Bentzinger, 2016; Newell, 2016; Brista, 2011).

Universities' offices of international affairs generally provide guidance regarding issues specific to international students, such as completing additional paperwork and finding employment that fits within federal student visa guidelines (Bentzinger, 2016; Brista, 2011). These offices also work with international students to explain and clear misconceptions about academic programming, which helps international students adjust to new academic models (Brista, 2011). Employees in the office of international affairs typically have experience working with non-native English speakers, which eases communication between international students and university administrators. The office of international affairs often puts international students in contact with other international students, which provides them with an additional network of support consisting of students experiencing similar transitions (Bentzinger, 2016). Additionally, these offices put international students in contact with domestic students to help establish rapport

between international students and the local community (Brista, 2011). These resources provide international students with the support they need to adjust to a new academic system and culture.

### **Immigrant & International Student Health: Definition, Status, and Seeking Behavior**

A person's understanding of health is heavily influenced by their experiences with the health care system and cultural factors. The World Health Organization has expanded its definition of health, which was framed from a biomedical perspective, to include emotional well-being in addition to physical well-being. Religious, spiritual, and supernatural concepts are integral to health in Asian and African cultures, whereas Western cultures lean primarily on biomedical and psychosocial definitions of health (Weerasinghe & Mitchell, 2006). A study by Weerasinghe & Mitchell (2006) asked female immigrants from East Asia, South Asia, Africa, and Latin America to define health and explain how their perspectives of health impacted their interactions with health care providers. Despite coming from a variety of different countries, nearly all participants described health in a similar way. Participants acknowledged the importance of physical health, describing that physical fitness required "all body parts and organs functioning well" (Weerasinghe & Mitchell, 2006 p. 315). However, greater emphasis was placed on emotional health than physical health as participants explained that health required an overall sense of comfort and the absence of stress or emotional problems. In order to be more inclusive of cultural beliefs regarding health, the definition of health has been expanded beyond its original definition, which was the "absence of disease" (Kindig, 2007 p. 142). Health is now recognized by most health care professionals as being more holistic, incorporating mental, physical, and social well-being. This understanding of health is important to consider when caring for and evaluating the health of immigrants and international students, who may embrace different cultures.

Research has shown varying evidence regarding the health status of both immigrants and international students. A study by Kandula and colleagues (2004) evaluated the health of immigrants compared to natives among leading health indicators. Their study found that while immigrants participated in less deliberate exercise, they placed a greater emphasis on active lifestyles. Kandula and colleagues (2004) also found that immigrants reported lower levels of substance abuse, tobacco use, and mental health problems. Additional research has found conflicting evidence, as Castro (2008) highlights that Latino immigrants have shown to have healthier diets and increased exercise behavior but higher levels of cigarette, alcohol, and illegal drug use. Results from the California Health Interview Survey revealed nearly all immigrants reported being in better physical health status than native populations, but many groups reported worse psychological health status when compared to native groups (Williams et al., 2010). Further research on immigrant health has found that immigrant health status decreases as their time in America increases (Williams et al., 2010). Msengi and colleagues' (2011) findings highlighted a decline in the health status of international students after relocating to large universities in the United States from several different continents including Europe, Africa, and South America. Research participants indicated changes in their health were linked to decreased levels of physical activity, increased levels of fat intake, decreased sleep quality, and decreased water consumption. In a similar study, international students at an Australian university reported engaging in more unhealthy behaviors than domestic students such as smoking, illicit drug use, and gambling, poorer global life satisfaction, and poorer perceived social support than domestic students (Skromanis et al., 2018).

Health disparities among international students may be exacerbated by differences in health care seeking behavior. In a comparison of domestic to international students, Kramer and

colleagues (2004) found that female international students paid less attention to their health than domestic female students. Additionally, studies have highlighted that international students waited multiple days before seeking health care when they felt ill or injured (Kramer et al, 2004; Msengi et al, 2011). In a study by Austin (2013), international students reported having more anxiety regarding current medical concerns than domestic students. This anxiety, along with decreased English fluency, resulted in international students having decreased health efficacy compared to domestic students (Austin, 2013). This means that international students were less likely than domestic students to receive the desired outcomes when seeking care (Austin, 2013). Reasons for not receiving care right away may be linked to poor awareness of support services, language barriers, or a perceived stigma of disclosing health information (Skromanis et al., 2018). Contrarily, a study by Hudack, Carmack, and Smith (2018) found that international students were more likely to comply with university health care providers' recommendations than domestic students. This could be a result of differences with past medical providers or cultural expectations to respect health care providers (Hudak et al., 2018). International students' health care-seeking experiences tend to be different than domestic students because health beliefs can be culturally based (Cooper & Yarbrough, 2016).

Cultural beliefs can play a role in health care, which may impact how immigrants and international students understand and interact with health care. One way culture can impact health care is through religion and spirituality. Religion and spirituality can provide positive influence on health status, as many religions promote healthy lifestyles, provide social support, and are associated with better mental health (Rumun, 2014; Oman & Thorensen, 2002; Koenig, 2004). However, religion can also have negative impacts on health care, as they can influence patients to forgo needed care or stop needed treatment (Rumun, 2014). Religious or spiritual

belief systems sometimes employ theories regarding the causes of illness, which may lead to misunderstandings regarding the goals of health care. In Latin American and Middle Eastern populations, magico-religious beliefs are sometimes used to explain illness. This belief system suggests that supernatural forces inflict illness or injury on humans as punishment for sin (Andrews & Boyle, 2008; Rumun, 2014). This contradicts western views of medicine that attribute illness to physical and chemical processes. These differing perspectives on the cause of illness can influence the way patients interact with health care providers. Certain religious beliefs may prevent patients from receiving immunizations or taking antibiotics or other medications (Conyn-van Spaendock, 1996; Koenig, 2004). A study at the University of Pennsylvania's pulmonary oncology clinic revealed that 66% of patients indicated that religious beliefs influenced their decision making (Ehmen, 1999). To further illustrate this point, Roy et al (2004) found that participants who reported embracing traditional and spiritual beliefs were more likely to use home remedies to treat illnesses than to seek formal care and felt that home remedies were more effective than prescription drugs at curing illnesses. Varying beliefs regarding the causes of illness and the course of treatment can lead to miscommunications and differing expectations between patients and providers, which could lead to diminished trust and decreased adherence to plans of care (Pavlish, Noor, & Brant, 2010). In a study by Zhang (2016), Chinese international students discussed the barriers faced while navigating between traditional Chinese medicine, which regards illness as an imbalance between the body and the environment, and western biomedical medicine. Participants stated that while they appreciated the efficiency of western treatment, they feared that the side effects of medicine were too strong and would cause more harm to the body than traditional Chinese medicine would. Some participants also claimed that they felt misunderstood during appointments because doctors were not familiar with treatments

used in traditional Chinese medicine and were unwilling to accommodate to alternative methods of treatment (Zhang, 2016). Another cultural factor that may impact health care utilization is family structure. Some cultures value familism, which places the family unit above the individual. Familism is characterized by a perceived obligation to support family members mentally and emotionally, involvement of family members in the decision-making process, and reliance on family as a source of support (Corona et al, 2017; Abeseikong et al 1981). The involvement of the family in decision making contrasts with way decisions are typically made in western medicine, which is based on individualism. This means the individual makes the decisions that are best for his or her health (Singleton & Krause, 2009). Health care patients from cultures that embrace familism, such as Hispanic/Latino, rural African, and Asian, may base their health decisions on their families' needs (Corona et al., 2017; Abeseikong, 1981). A survey of cancer patients and their families in a Chinese hospital revealed that over half of family members believed they should be involved in medical decision-making (Zhang et al., 2015). Similarly, Abesiekong (1981) found that in rural Africa, the decision to hospitalize sick patients was made by the entire family and not the sick individual. As a result of this research, he recommended that health care providers consider the needs of the family as well as the individual (Abesiekong 1981). Another, slightly different, concept that considers family involvement in medicine is family-centered care. Family-centered care still aims to put the individual's needs first but is characterized by open communication between doctors, patients, and the entire family (Al-Motlaq & Shields, 2017; DeMaesneer & Flinkenfogel, 2010).

In addition to cultural factors, immigrant and international student health care utilization may be impacted by their understanding of the health care system. Those hailing from different countries may have access to varying levels of health technology or information based upon the

health system in their home country, which can have an impact on health literacy (Zhang, 2016). Zanchetta and Poureslami (2006) found that the most commonly reported barrier to receiving health care among immigrants is a lack of information about available services. Chinese international students in a study by Zhang and colleagues (2016) reported that they did not know how to see a doctor and that self-diagnosis seemed easier than choosing the appropriate health care provider. This confusion surrounding seeking out health care providers is compounded by confusion regarding health insurance coverage.

International students may also have difficulty purchasing and understanding health insurance. Poyzrali and colleagues (2007) found that international students did not understand the health insurance coverage they received while living in the United States. Participants claimed they purchased health insurance because it was mandatory but were not prepared for the costs associated with health care even after having purchased insurance. This finding was echoed in a study by Zeimer et al (2014) in which immigrants explained that even though they were provided insurance through their employer, they lacked understanding of how this insurance worked. Some claimed they attended appointments and received bills much higher than anticipated, and others claimed they felt inclined to self-treat or self-medicate because they feared the cost of health services (Poyzrali & Grahame, 2007). International students in a study by Adeboyega et al (2020) described similar challenges, stating that they struggled to understand how their insurance worked, and they felt the information provided by the university and insurance companies was insufficient. The confusion surrounding insurance coverage led to 25% of these international students delaying care. Additionally, all of these participants expressed concern regarding the cost of American health care despite having insurance coverage. This was consistent with previous research that indicates international students perceive American health



care to be unaffordable, which prevented some from receiving care (Zysburg, 2005). A study by Song (2010) showed that lack of health insurance combined with poor health status led to decreased utilization in immigrant populations. Song et al (2010) also suggested that decreased health care utilization was the result of placing more urgent issues, such as the need to adapt to a new culture, as a higher priority than deciphering the health care system. The lack of familiarity with the American health care system and the costs associated with it serve as a barrier to seeking health care for international students in America.

### **Health Care Systems in Other World Regions**

ISAs' interactions with health care may depend on their previous experiences. Differing health care structures may impact the process in which ISAs are used to receiving care. Therefore, it is worthwhile to have an understanding of the health care services available throughout different world regions. Represented regions included Scandinavia, The United Kingdom, Latin America, Oceania, Southeast Asia, and Sub-Saharan Africa.

#### ***Scandinavia***

Scandinavia is made up of five different countries. There are small differences in each country, but health care throughout the region is similar and widely accessible to most of the population (Holm et al., 1999). Health care in Scandinavian countries is primarily government-run, although private facilities are available. The provision of health care services begins with primary care physicians, who serve as gatekeepers to specialist care and are responsible for referring patients to specialist providers. Health care costs are covered primarily by taxation and are therefore provided at low costs to citizens (Holm et al, 1999). Criticism of Scandinavian health care includes challenges regarding continuity of care (Ahgren, 2014). Patients who are referred to multiple specialists may receive contradicting advice or instruction from different

specialists, which leads to confusion and inefficiency of care (Ahgren, 2014). Varying efforts to improve interdisciplinary care in all countries have been implemented in hopes to improve continuity of care. Despite these challenges, high-quality health care remains widely accessible in Scandinavian countries.

### ***The United Kingdom***

The United Kingdom (UK) consists of four different countries. Health care in the UK is provided by the National Health Service (NHS). The NHS provides universal health coverage that is free at the point of service (Grosios et al., 2010). Health care is managed by primary care physicians who are responsible for referring patients to specialist providers (Cockerham, 2012). Health care costs are covered primarily through government taxation, but private health insurances are available that allow access to private facilities and shorter wait times. Criticism of health care in the UK includes insufficient funding, long wait times, and decreased patient autonomy as a result of government control of care (Cockerham, 2012). Despite these downfalls, the NHS successfully provides affordable health care to all citizens of the UK (Cockerham, 2012).

### ***Latin America***

Latin America consists of thirty-three different countries. Health care in most Latin American countries exists in one of two structures: The Universal Health Coverage model (UHC) and the Single Universal Health System (SUS) (Laurell & Giovanella, 2018). The UHC model consists of public and private health care providers and facilities and provides citizens with free choice among providers. UHC health care is funded by public or private insurance companies and out-of-pocket payments by patients (Laurell & Giovanella, 2018). The downfall of this system is that the ability to receive health care depends on the ability to pay for it, which

limits accessibility. The SUS model regards health care as a responsibility of the state, and therefore the state directly provides health services. These services include hospital and outpatient services and are funded heavily through taxation. The state's funding and facilitation of care have made it equally accessible to citizens across all socioeconomic statuses. The availability of health care based on need and not ability to pay allows the SUS model to have a greater impact on health conditions than the UHC model (Laurell & Giovanella, 2018).

Countries that have successfully implemented SUS systems have inspired reforms throughout the Latin American region.

### ***Oceania***

Oceania consists of fourteen different countries. Health care throughout the region is primarily organized and funded by the government (Mossialos et al., 2017). State and federal governments are responsible for contributing to funding and operating services. Services include hospital care, pharmaceutical care, and mental health services. Government regulations including out-of-pocket cost caps and mandated health insurance coverage have helped keep individual health care costs low. In some countries, private health insurance plans and private health care providers serve as an alternative to public care. Downfalls of health care in Oceania include that government spending caps can result in rationed services and prolonged wait times at public facilities, which limits accessibility to care for those who cannot afford services at private facilities (Chin et al., 2018). This difference in access to care among various socioeconomic classes has led to noticeable health disparities (Chin et al., 2018; Mossialos et al., 2017).

### ***Southeast Asia***

Southeast Asia consists of ten different countries. Health care in Southeast Asia exists in both public and private forms. Countries that rely on public systems have maintained health

equity by providing low-cost care to citizens (Chongsuvivatwong, 2011). However, in more affluent countries, a desire for more efficient care and advanced technology has shifted health care towards a private-public hybrid model in which hospitals operate privately but continue to receive government subsidies (Chongsuvivatwong, 2011). Health care in Southeast Asia is funded through a combination of government subsidies and health insurance coverage. Health insurance exists in both public and private forms, and most Southeast Asian governments have passed laws mandating universal coverage. While government involvement has kept health care affordable, a push for advanced technology and higher quality care has led to a gradual shift in the way health care is provided (Chongsuvivatwong, 2011).

### ***Sub-Saharan Africa***

Sub-Saharan Africa consists of forty-six countries. Health care in sub-Saharan Africa exists in both private and public forms (Grigorov, 2009). While public health facilities are more affordable, insufficient funding has resulted in lower quality of care. Private health facilities are generally more expensive but are better equipped to provide higher quality care (Grigorov 2009). Health insurance is provided by community-based insurance schemes as well as national insurance plans provided in several different countries (DeAllegri et al, 2017; Dechambenoit, 2016). The major downfall to health care systems in sub-Saharan Africa is that insufficient funding strictly limits the availability of resources. Low physician to patient ratios combined with a continued disease burden make it difficult for health care facilities to provide citizens with the care they need, especially for minor illnesses or injuries (Akukwe, 2015; Agbiji & Agbiji, 2016). Government initiatives have led to gradual improvements in the availability of care, but access to care remains limited.

## **Health Care in the United States**

Health care in the United States is primarily run by private providers. Health care services include primary care physicians, outpatient specialist providers, hospitals, and long-term care facilities (Mossialos et al, 2017). Primary care physicians have no formal gatekeeping responsibilities, although some insurance policies require physician referrals in order to provide coverage for specialist care. Patients have free choice of primary care physician among in-network providers as mandated by their insurance plan (Mossialos et al., 2017).

Health insurance in the United States is provided in both public and private forms. (Mossialos, 2017). The passage of the Affordable Care Act in 2010 aimed to achieve universal health care coverage through shared responsibility of individuals, employers, and the government. The Act makes insurance coverage the legal responsibility of U.S. citizens and provides income-based subsidies when necessary (Rosenbaum, 2011). However, despite this mandated insurance coverage, 13% of American citizens remain uninsured (Carmen et al., 2015). This is a major downfall of the American health care system, as the high health care costs create the necessity of insurance coverage. Research has shown that out of pocket costs of health care are higher in America than in any other developed nation (Ramsey et al., 2013; Cohen et al., 2016). International students have access to the American health care system through university health centers and are usually required by the university to purchase health insurance. However, little guidance is provided to international students while trying to navigate American health care (Adeboyega et al., 2020). The high costs of care and confusion surrounding insurance coverage may serve as a barrier to care for ISAs despite the quality of health care being similar to that in other developed countries. Therefore, it is necessary to provide ISAs with the information and guidance necessary to navigate this health care system.

## **Access to Resources in Developed vs. Developing Countries**

The level of adjustment required of student-athletes may depend on how similar their lifestyle at home was to their experience in America. Pozyrali and colleagues (2004) found that international students from European countries experienced less acculturative stress than international students from Asian countries. This is likely due to the fact that life in westernized countries, such as those in Europe, is fundamentally similar to life in the United States (Pozyrali et al., 2004). Lifestyle is heavily determined by the available resources (Cockerham, 2012). The United Nations lists countries as developed, developing, or in transition based on the level of industrialization and production of their economies. Developed countries include those in North America, the European Union, Scandinavia, and Oceania. Developing countries include the majority of those in Asia, Africa, and Latin America (United Nations, 2020). The level of development of a country can have an effect on the access to resources within that country. Research has shown that people living in developing nations have decreased access to health care. According to Peters and colleagues (2008), poorer countries suffer a greater disease burden, and health care is difficult to access due to geographic and financial barriers (Peters et al., 2008). Children in developing countries may also have decreased access to education, particularly in rural areas.

Vasconcellos (1997) highlights that decreased transportation, decreased availability, and shortened periods of instruction prevent children in rural developing areas from accessing the same quality of education as children in urban, more developed areas. Masino and colleagues (2016) explain that while access to education in developing countries has improved throughout the last few decades, the quality of education remains poor. The overall decreased quality is

evidenced by low levels of literacy, low attendance rates, and inconsistent instructor qualifications (Masino et al, 2016).

The ability of children to access the resources they need depends not only on the availability of these resources, but the proximity of adults, usually parents, who provide them. According to Lloyd and colleagues (1992), family structure plays a major role in development because children depend on their parents for essential care, economic support, access to health care. The presence of siblings within the family can also affect access to resources both positively and negatively. Lloyd and colleagues (1992) argue that children with siblings experience greater competition for resources but can also rely on their siblings for additional sources of support. Nuclear family structures are the norm in most developed nations. Though research has shown that most children live primarily with their mothers, children experience childhood with their siblings and receive resources from both biological parents. Family structures in developing nations looks slightly different. Lloyd and colleagues (1992) found that children in developing countries were more likely to spend significant amounts of time away from their biological parents and siblings, and often relied on extended family members to provide them with resources. The ability of resources available throughout life depends heavily on both family structure and the country's level of development. Based on this information, it is likely that ISA from developed or westernized countries will describe cultural factors and resources similar to what they experience in the US, whereas those from developing countries may notice more of a difference as they transition to a different culture.

### **Sporting Models Throughout World Regions**

Sports throughout the world are organized in several different structures, including club sports, federal sports, and academic models. Many European and Latin American cultures

embrace the club model of sports. In this model, athletes sign with private clubs that in turn provide resources meant to groom club members into professional athletes (Bentzinger, 2016). As athletes get older and talent develops, clubs at the junior and professional level provide a stipend to members of the club. This often jeopardizes the NCAA eligibility of these athletes, as it violates their amateur status (Hosick, 2010). In contrast with the club model, some countries use federal sporting, a system in which government facilitates youth and professional sport. Federal facilitation of sport is typically motivated by one of two initiatives: public health promotion, or to prepare athletes to compete in international competitions (Chalip, 1996). These motives are an important factor in determining how resources are allocated. Governments that aim to develop elite athletes will focus funds on the resources needed to develop a few elite competitors (Chalip, 1996). Governments that aim to improve public health will distribute funds among many sport programs with the goal of making programs accessible to as many people as possible (Chalip, 1996). Additional research has looked at the structure of youth sports by comparing the amounts of active play to participation in organized sports. Several European and African countries received high grades for overall activity, active play, and overall transportation (Tremblay et al., 2016). The United States received low grades for overall activity, but moderate grades for participation in organized sports. These findings suggest that the United States places higher emphasis on organized sports than leisure activity when compared to other countries (Tremblay et al., 2016). ISAs may perceive sports in the US to be more formal and organized than what they experienced in their home countries.

### **International Student-Athletes: Motivations, Challenges, and Resources**

The recruitment of ISAs in the United States dates back to the 1950s and has continued to grow since its initiation (Ridinger & Pastore, 2000). According to the NCAA, there are currently



over 20,000 ISAs participating across the three divisional levels in twenty-four different sports (NCAA, 2020). ISAs choose to participate in sport in the United States for a variety of reasons, primarily related to athletics and academics (Garant-Jones, 2007), including athletic scholarships, the ability to continue their sport at a competitive level, and the possibility of obtaining a professional career. American universities offer a unique opportunity to participate in sport at a competitive level while simultaneously obtaining an education — an opportunity that is not available in many other countries (Bentzinger, 2016). Not only can ISAs pursue an education while continuing their athletic career, the ability to receive an athletic scholarship allows ISAs to receive an education that they may not be able to otherwise afford (Bale 1991; Bentzinger, 2016).

Of all influences, the availability of an athletic scholarship may be the primary motivator in ISA participation. A study by Popp, Humms, and Greenwell (2009) revealed that ISAs rated the availability to receive a scholarship as the most influential factor in choosing a university, whereas domestic students prioritized school reputation. This finding is echoed in a study by Danylchuck and Grbac (2015), in which ISAs described the availability of full scholarships as a major motivating factor in moving to the United States. Additionally, research has found that ISAs believe American universities provide a higher level of competition, higher quality training facilities, and more professional opportunities than they would have access to in their home countries (Bale, 1991). In the study by Danylchuck and Grbac (2015), participants also stated that involvement in intercollegiate athletics in the United States provided the exposure needed to be recruited by professional teams. Based on this finding, some ISAs may view collegiate athletics as a pathway to professional playing careers.

In addition to being athletically motivated, ISAs may be academically motivated to attend universities in the United States. As previously mentioned, the ability to continue an education and a playing career simultaneously serves as a contributing factor in ISA migration to the United States (Bentzinger, 2016). In the study by Popp, Hums, and Greenwell (2009), ISAs reported the importance of competition to be lower when compared with domestic students. Popp and colleagues (2009) theorize this could be due to ISAs placing a greater emphasis on academic success than their domestic counterparts. In a study by Popp, Pierce, and Hums (2011), ISAs were asked to rank various factors that influenced their decision to move to the United States. Of the top five rated factors, two were academically related: the availability of a degree that would lead to a good job, and the academic reputation of the institution. Though the majority of factors motivating ISAs to move to the United States were athletic related, academic factors may motivate ISAs as well.

ISAs must overcome a unique set of challenges while pursuing their athletic and academic goals. In her study on ISA adjustment, Newell (2016) found that ISAs reported having difficulty adjusting to the schedule and intensity of collegiate athletics. A study by Vadopalaitte-Witt (2019) revealed a similar sentiment — ISAs reported that practices in the United States were more strict, detailed, and intense than practices back home. ISAs may also have difficulty understanding the nature of athletics in the United States. Participants in Vadopalaitte-Witt's (2019) study reported difficulty learning the rules and terminology used by their American coaches. Additionally, ISAs in Newell's study reported difficulty comprehending NCAA rules and regulations. Additionally, ISAs may have difficulty maintaining the balance between athletics and academics. Newell's study, which compared ISAs to domestic student-athletes, found that ISAs reported a greater difficulty balancing the workload of school and sport than

their American counterparts (Newell, 2016). International students are a unique population because of the challenges they must endure when adjusting to life in a new country and life as a student-athlete.

In order to help ISAs meet these challenges, they often rely on the support provided to them by the athletic department. Research regarding student-athlete support models typically centers around holistic, multifaceted support including social support, professional development, academic assistance, athletic support, psychological support (Broughton & Neyer, 2006; Carodine et al., 2001; Lottes et al., 2006). NCAA policy has recently been updated to reflect these recommendations. Academic support is provided by way of athletic academic advisors, who assist athletes in scheduling classes, meeting degree requirements, and communicating with professors while simultaneously maintaining NCAA eligibility. Additional academic resources include part-time tutors and supervised study halls (Sloan, 2005). Professional development is enabled by the CHAMPS/Life Skills program, which provides support for universities to help student-athletes develop decision making and leadership skills (NCAA, 2009). Athletic support includes mentorship from coaches, administrators and other members of the athletic department. ISAs have highlighted the importance of team environment in adjusting to the role of a student-athlete, which is created through relationships with coaches and teammates (Newell, 2016). Additional athletic support includes compliance members who help student-athletes comprehend and abide by NCAA rules (Jefferson, 2020), and counseling and education regarding sports injuries (Carodine et al, 2001).

### **Injury Among College Athletes**

Collegiate athletes play at a highly competitive level where their training schedules and competitions are intense. Safai (2003) uses the term “culture of risk” to describe the unspoken

understanding that collegiate athletes will at some point experience and tolerate pain. Safai (2003) theorizes the repetitive stresses applied to the body during sports lead to the body becoming increasingly worn down. Research reflects this theory, as research by Etzel and colleagues (2006) shows on average, nearly two athletes per game suffer a significant injury per during collision sports. Furthermore, a study by Nixon (1996) revealed that nearly all student-athletes surveyed had experienced injury at least once. This culture of risk is maintained by “sport ethic,” which glorifies athletes who play through pain (Malcom, 2006). Student-athletes have a high risk of injury and a high probability of playing through pain and are therefore likely to require medical care at some point in their career. College athletes in a study by Baum-Mehus (2018) suggested there were three factors that influenced injury reporting behavior: their own self-assessment of the injury, the influence of others, and the consequences of reporting injuries. Athletes’ self-assessment of injuries included their pain levels, perceived ability to function, and previous experience with injury. Some student-athletes stated they would report minor injuries to avoid having them worsen, while others stated they would not report minor injuries because they felt they were an inherent part of sport and would eventually resolve themselves (Baum-Mehus, 2018). Baum-Mehus also found that sporting values affected injury reporting. Athletes who prioritized their own long-term health were more likely to report injuries than athletes who prioritized winning games. Previous experience also influenced athletes’ injury reporting, as those who had experience with injury were familiar with injury management strategies and weighed the known benefits and consequences prior to reporting. Baum-Mehus (2018) suggested that student-athletes considered all of these factors in their self-assessment of their own injuries. The influence of others also played a role in the decision to report. Athletes were more likely to report injuries when they felt they would be supported by the team, when they had a positive

relationship with their coach, and when they had the support of their parents (Baum-Mehus, 2018). The final factor athletes considered when deciding to report injury were the perceived negative consequences of being injured. Several athletes described that they feared reporting injuries would lead them to be perceived as weak, or that they would lose their positions within the team. ISAs consider several different factors when choosing to seek health care, which is provided in several forms.

### **University Health care: The Role of the Athletic Trainer**

Universities provide health care to students in the form of university health centers. These health centers are typically on campus and funded through student fees, which makes them an affordable and easily accessible health care resource (Perrault, 2018). University health centers are similar to other primary care facilities in that they provide primary and ambulatory care as well as generate referrals to outside providers (Funderburk, 2012). Services provided at university health centers include primary health care, mental health care, women's centers, career counseling, and drug and alcohol abuse and education centers (Bourdon et al., 2020). Utilization of these facilities depends on insurance acceptance, continued use of outside providers, and limited clinic hours. However, research has shown that nearly half of college students rely on student health centers to receive health care (Perrault, 2018).

ISA's are similar to other international students in that they have access to counseling services and university health centers. However, they also have access to athletic trainers that help facilitate their health care needs, which are presumptively greater than that of the regular student population due to the injury risk posed by sport. Athletic trainers serve as the link between athletes and the medical community. The relationship between the athletic trainer and the athlete is of fundamental importance in providing services to student-athletes (Unruh, 1998).

Athletic trainers are responsible for the “diagnosis, management, and return to play determinations for the college student-athlete” (NCAA, 2014 p. 9). There are multiple models of sports medicine accepted by the NCAA, but the sports medicine team is ultimately assembled with the goal of balancing the health and performance of student-athletes. (NCAA, 2014). The NCAA’s foundational approach to health care is “athlete-centered care,” which is similar to patient-centered care- or the delivery of health care services that are focused on an individual’s needs and concerns (NCAA, 2014). Athletic trainer-athlete rapport is a primary factor in treatment adherence, and athletic trainer understanding of the athlete perspective can greatly improve delivery of care (Unruh, 1998). A study by Fischer and Holsington (1993) found that athletic-trainer athlete rapport was the primary factor behind rehabilitation adherence. Additionally, in a study by Moulton, Molstad, and Tanner (1997), athletic trainers view themselves as “safe, approachable, caretaking individuals with whom athletes felt comfortable sharing personal information.”

The title of *athletic trainer* is unique to the United States. Sports medicine in other countries is provided by a variety of health care providers such as physiotherapists and massage therapists (Grant et al., 2014). The role of a physiotherapist is to provide treatment and rehabilitation of injuries in addition to providing support with injury prevention, maintenance, and recovery and support for performance and can occur in a sport club or clinical setting (Grant et al., 2014; Lafferty et al., 2008). While most physiotherapists operate at hospital or outpatient clinical settings, some high-level competitions will incorporate physiotherapists that are embedded within the athletic setting (CSP, 2020; Galloway & Watt, 2004). While the overall function of physiotherapists is similar throughout the world, there are no universal guidelines regarding their education, scope of practice, and accessibility. For many ISAs, an athletic trainer

is a new resource that they have little to no experience utilizing. Athletic trainers primarily work within the athletic realm and are responsible for injury prevention, diagnosis, and rehabilitation, which is different from the role of clinic-based physiotherapists in most other countries (NATA, 2019). The role of ‘athletic trainer’ is unique to the United States, so this specific area of health care may not have been available to ISAs (NATA, 2019). This is an important consideration for athletic trainers to make when providing care to ISAs, as culturally competent care must consider each athletes’ past experiences.

Recent research has advocated for athletic trainers to practice culturally competent, patient-centered care (Marra, 2010). Cultural competence is defined as “a set of academic and interpersonal skills that allow individuals to increase their understanding and appreciation of cultural differences and similarities within, among, and between groups” (Nunez, 2000 p. 1072). Patient-centered care encourages the clinician to view injury and illness through the patient’s perspective (Saha, 2007). Though cultural competence and patient-centered care are not the same, both aim to increase the quality of care by considering the values and needs of individual patients (Saha, 2007). Marra and colleagues (2010) highlight that the need for culturally competent care is derived from the need to provide care to all members of the population, including those who face cultural barriers. They also point out that cultural factors can impact symptom presentation and expression as well as medication use. Failure of athletic trainers to consider these differences can lead to decreased compliance and reduced patient satisfaction (Marra et al., 2010). Providing culturally competent care helps provide an optimal healing environment and leads to better patient outcomes. The ISA student population continues to grow, and ISAs come from a variety of different backgrounds that incorporate different cultural beliefs and experiences. Athletic trainers must consider the unique values and needs of ISAs as they

navigate the challenges of being a student-athlete, and this study aims to determine what these needs and values are.

## **Conclusion**

International students who move to the United States to pursue a college education are faced with several challenges that arise as they adapt to life in a new culture. These challenges include language barriers, adapting to a new education system, and navigating a new health care system. Studies have shown health disparities in international students as well as decreased levels of health care-seeking behavior. Reasons for decreased health-seeking in international students can include differences in previous health care or cultural factors. Family and religious involvement may play a greater role in health care decisions in international students.

Additionally, most international students are from countries with health care systems that are different from that of the United States and have reported difficulty navigating American health care and health insurance. This study focuses on a small subset of this population: international student-athletes. ISAs come to the United States to pursue the unique opportunity of simultaneously receiving an education and playing sport at a competitive level. ISAs must make the same cultural adjustments as international students as well as overcoming challenges specific to their role as student-athletes. One of these challenges is an increased injury risk, caused by the physical demands of sport. As student-athletes, ISAs are provided with athletic trainers, who help provide and coordinate health care. Athletic trainers are encouraged to provide culturally competent care, which includes incorporating student athletes' individual wants, needs, goals, and experiences. When providing care for international student athletes, it is essential that athletic trainers consider the unique values and challenges international athletes face, including cultural adjustment and a new health care system.



Lastly, there is a lack of research regarding ISAs and their interaction with health care. Literature on health care focuses heavily on international students and immigrant populations, and literature on ISAs focuses primarily on adjustment issues. Therefore, it was difficult to directly compare the data from this study to what is suggested in previous literature. A combination of literature regarding health care in international populations and challenges specific to collegiate athletes were used to facilitate discussion of this data.

## CHAPTER 3

### METHODS

The purpose of this study is to examine how cultural factors and past experiences impact health behavior in international student-athletes. Two research questions were developed in order to guide this study: 1) How does international student cultural context impact compliance with university health care? 2) How have international student-athletes' life chances impacted medical choices and lifestyles?

#### **Methodology**

The methodology was developed to guide the study and answer the research questions (Mills & Birks, 2014). The methodology is a framework adapted from Health Traditions Model and the Theory of Health Lifestyles (Spector, 1979; Cockerham, 2012). These models were combined in order to develop a holistic picture that captured the cultural beliefs and past access to resources of participants, as both contribute to the way participants engage with health care in the United States.

The Health Traditions Model argues that health must be viewed holistically by balancing health mentally, physically, and spiritually. It also argues that health requires a balance between the individual and the outside world (Spector, 1979). According to the model, components of health include the body, the mind, and the spirit. The body is comprised of multiple factors including genetic inheritance, body chemistry, age, gender, nutrition, and physical condition. The mind includes cognitive processes such as thoughts, memories, and knowledge of emotional processes such as feelings, defenses, and self-esteem. The spirit includes learned practices and teachings such as dreams, symbols, gifts, protecting forces, or metaphysical forces. These factors interact to create the context of the person's family, culture, work, community, history, and

environment. The primary basis of The Health Traditions Model is the interaction of culture and health. Spector (1979) defines culture as "the sum of beliefs, practices, likes, dislikes, norms, customs, and rituals that we have learned from our families during the years of socialization (pp. 75-76)." According to Spector, culture plays a role in explaining the causes of diseases, interpreting symptoms, communicating with providers, and selecting appropriate treatments (Spector, 1979). The Health Traditions model argues that health in a cultural context has several interrelated concepts- that individuals have methods of protecting, maintaining, and restoring health. The model defines illness or injury as a state of imbalance, and healing is the process that restores balance. An individual's health behavior may lean towards modern beliefs, which align with the western health care delivery system. These beliefs include regular physician examinations and efficient diagnoses with advanced medical technology. In contrast, they can lean towards traditional beliefs, which are ancient ethnocultural religious beliefs that have been passed down through generations. Traditional beliefs often involve a delay in seeking formalized health care in favor of self -treating with home remedies. These beliefs depend on heritage consistency, which is the extent to which an individual embodies his or her given ethnocultural heritage versus the dominant culture (Spector, 1979). Spector (1979) used her model to determine the cultural understandings of health, health behaviors, and various home remedies across different ethnic populations. Research has used Spector's work with this model to emphasize the importance of providing culturally competent health care (Musgrave et al., 2002; Elder et al., 2009).

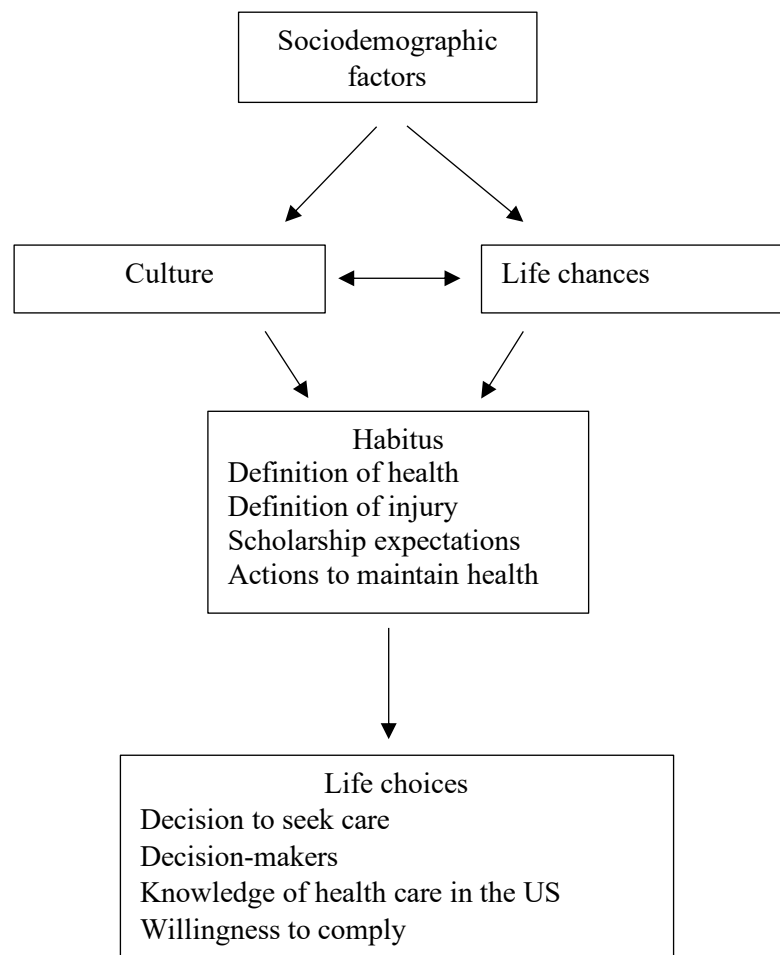
The Theory of Health Lifestyles is a collective pattern of health-related behavior based on the choices available from one's life chances. Life chances are determined by an individual's class position and are defined as the probability of attaining satisfaction for interests, wants, and

needs. In order to obtain a particular lifestyle, one must have the financial resources, status, rights, and social relationships. Life chances either enable or constrain life choices (Cockerham, 2012). One's lifestyle is based upon life choices, but life choices can only be made upon the available opportunities, or life chances. According to Cockerham, health lifestyle choices include direct contact with health care providers- seeking medical checkups, treatment, or preventative care, but the majority of health lifestyle choices occur outside the realm of health care. These choices include day to day behaviors related to diet, physical activity, personal hygiene, risk behaviors, stress management, and alcohol or drug use. The Theory of Health Lifestyles begins with social structural variables including class circumstance, age, gender, ethnicity, collectivities, and living conditions. These social structure variables provide the context for Cockerham's next concept- socialization and experience. Socialization is society's imposition of norms and values on the individual, and experience is the learned outcome of day to day activities that occurs through social interaction and the exercise of agency, or the process through which individuals evaluate and choose their courses of action. Socialization and experience provide the context to make life choices, which are dependent upon social structure and the arrangement of life chances. The interaction of choices and chances produces a predisposition to act- or a habitus. This habitus serves as a cognitive framework that guides the day to day decisions of the individual. The overall interactions of chances, choices, and habitus are what create a health lifestyle (Cockerham, 2012). The Theory of Health Lifestyles has been used to determine how social capital and access to resources influences health behaviors and outcomes. Christensen and Carpiano (2013) used the Theory of Health Lifestyles to determine how social class affected health behaviors and outcome measures and found that increased social, cultural, and economic capital were associated with increased exercise and therefore decreased BMI. Similarly, Saint

Onge and Krueger (2017) used the Theory of Health Lifestyles to examine health behaviors and preventative health-seeking behaviors, and found that both variables were attributed to sociodemographic and structural context.

The framework used to guide this study combines the two models in an attempt to explain how the thought processes that create participants' understanding of health as well as guide their health-related decision making are developed. The framework (Figure 1) begins with sociodemographic factors that are beyond the control of the individual and include concepts such as gender, race, geographic location, and socioeconomic status. These factors help develop culture, which encompasses the values and behavior patterns passed down from the family (Spector, 1979). Sociodemographic factors also enable individuals to access certain resources, which are considered to be their life chances. Together, culture and life chances create a habitus, or the cognitive framework that guides the individual through the decision-making process. This habitus is what allows individuals to define health, injury, and illness. Additionally, it guides people through decision-making such as choosing to seek care, adhere to plans of care, or rely on alternative remedies when injured or ill (see Figure 1).

Figure 1: Adapted Framework



## Participants

Participants included ISAs participating in varsity sports at Georgia Southern University. The population consisted of international student-athletes representing fifteen different countries. These ISAs represented sports including men's soccer, women's soccer, men's tennis, women's tennis, women's golf, women's basketball, and women's track and field. Fifty-six percent of these ISAs were female and 44% were male. Participant recruitment was based upon the following inclusion and exclusion criteria. Inclusion Criteria: In order to be included from the study, participants must have 1) been born in a country other than the United States and 2) been

listed on a Georgia Southern University varsity sport roster or have been listed on a Georgia Southern varsity sport roster within the last two years at the time of data collection. Exclusion Criteria: Participants were not considered for the study if they 1) were under the age of eighteen or 2) were born in another country but moved to America prior to beginning school at Georgia Southern.

At the conclusion of data collection, 13 eligible participants had volunteered for the study. These 13 participants represented 100% of the sample population members from Asia, Africa, and Oceania, and 36% of the members of the sample population from Europe. The majority of the remaining members of the sample population who had not volunteered for the study were from Europe, a region that was already well-represented within the study sample. The study was conducted using the 13 participants who had volunteered by the end of this data collection period. All participants signed an IRB consent form that explained their participation in the study was completely voluntary and that no compensation would be given for participation.

### **Instruments**

A qualitative approach was used to conduct this study. Methods consisted of a semi-structured interview. The interview guide was developed using a framework adapted from William Cockerham's Theory of Health Lifestyles and Rachel Spector's Health Traditions Model (Cockerham 2012, Spector 1979). All concepts included in the framework were used to develop interview questions. All participants were asked the same questions and were given probing questions when necessary. Sample interview questions are listed below.

Table 1: Interview Guide Questions

Question Prompts	Framework Concepts				
	Socio-demographic	Life Chances	Culture	Habitus	Life Choices
<b>What year in school are you?</b>	✓				
<b>What was your first language?</b> -If not English, how many years of English-speaking experience do you have?	✓				
<b>Tell me about your culture-religion, family structure, rituals, role of sport</b>  Talk about your family- roles of mother, father, children, extended family  -Are your parents married?  -what role did you play in the family? Are you the oldest sibling?  -were you a caregiver? Who was?  Is this common in your home country?  Talk to me about religion do you practice one?  -how does it play a role In daily life?  -are there any rituals or traditions specific to your religion?			✓	✓	
<b>Define health</b>  how did you develop your understanding of health?				✓	



What does your culture do to maintain health?					
<b>How does your culture view illness?</b> How did you develop your understanding of illness? Is this common in your culture? What do you do to prevent illness?			✓	✓	
<b>How do you decide when to see a doctor/health professional?</b> For illness? For injury?					✓
<b>Tell me about health care in your home country</b> Government-run vs. privatized Accessibility Affordability		✓			
<b>What type of health care do you think you have access to in America?</b>		✓			
<b>What would you do if you were injured playing sport back home?</b> Athletic trainer? Physio?		✓			✓
<b>What would you do if you were injured playing sport in America?</b>		✓			✓
<b>What would you do if you were to become sick in America?</b> Athletic trainer? Student health center?		✓			✓

Home remedies?					
<b>In the event of an illness or injury, how likely are you to follow your athletic trainer's plan of care?</b>  What factors contribute to these decisions					✓
<b>Do you have any concerns about health care in America?</b>  Access  Types of available treatment  Knowledge of doctors  Equality of treatment  Negative/positive interactions of others		✓			✓

### Pilot Study

Prior to the study, a pilot study was conducted to assess the quality of the interview guide and allow the interviewer to establish interview skills. The pilot interviews were conducted using the same procedure as the study interviews. Participants in the pilot study included a graduate student from Ghana who has lived in America for five years and has had a notable amount of interaction with the American health care system, a collegiate athlete from France who has experience working with athletic trainers, and an undergraduate student from Kenya who has lived in America for one year and has little experience with the American health care system. Feedback from pilot interviews was used to adjust questions on the interview guide that were not clearly understood or required more context. There was only one question that led to confusion among pilot participants, which was “how does your culture view illness?” This question was

reworded to say “from a cultural perspective, how do you define illness” prior to conducting official interviews.

### **The Researcher as an Instrument**

Qualitative interviews require that the researcher acts as the primary instrument of data collection. By facilitating the semi-structured interview, the interviewer becomes an active participant in the research environment (Britten 1995). Unique researcher characteristics and prior experiences or biases can influence data collection and interpretation (Pezalla 2012) My own personal bias as a researcher includes prior experience providing health care to ISAs. This experience involved difficulty with communication and non-compliance.

To minimize interviewer bias, the interviewer must monitor the directiveness of her own interview technique. The interviewer must be able to allow participants to divulge information freely while still maintaining control of the interview. Strategies for maintaining control of the interview include knowing the purpose of the interview, asking appropriate questions that will yield necessary information, and giving appropriate verbal and non-verbal feedback (Patton 1987). Development of these skills requires practice by the interviewer in the form of pilot studies. Pilot studies allow the researcher to practice using their data collection method, analyze their performance, and discard or edit any unnecessary or ambiguous questions (Chenail, 2011).

### **Procedures**

Participant recruitment was done via email. An email was sent to the athletic trainers of all varsity athletic teams with a request to forward the email to all ISAs on the team.

Participation in the study was completely voluntary. Once participants had indicated via email that they were interested in participating, they were scheduled for an interview session.

Immediately upon arriving, all participants were briefed of the study and signed informed

consent forms. Once consent was obtained, interviews were conducted. Participants were encouraged to elaborate and discuss topics related to interview questions. Participants were not limited to specific amount of time, but all interviews lasted approximately 30 minutes. All interviews were recorded and transcribed.

### **Analyses**

Interview data was analyzed with a codebook that was developed using a theory-driven approach (DeCuir-Gunby et al, 2011). The codebook was created using the framework adapted from the Theory of Health Lifestyles and the Health Belief Model (Cockerham, 2012; Spector, 1979). Constructs from the adapted framework were used to create codes, and literature was used to generate code definitions. Themes that emerged from participant discussion were used to create data-driven sub-codes, which were used to present findings. First, one full interview was coded by the interviewer and all committee members. The group discussed codes and looked for any codes that were agreed upon. Then the researcher and advisor coded all other interviews separately. The codes were discussed and any codes where there were differences, the committee was contacted for reconciliation.

## CHAPTER 4

### FINDINGS AND DISCUSSION

The codebook used to analyze data was created using a theory-driven approach based on the framework adapted from the Theory of Health Lifestyles and the Health Traditions Model (Cockerham, 2012; Spector, 1979). Constructs from the framework were used to create codes, and literature was used to generate code definitions. Data-driven sub-codes (emerging themes) within each code were identified and defined (DeCuir-Gunby et al, 2011) to present the findings. Theory-driven codes presented in this study are sociodemographic factors, culture, life chances, habitus, and life choices. The emerging themes will be presented in each section.

#### **Sociodemographic factors**

Sociodemographic factors were defined as *descriptive information and background information about the participant*. The six emerging themes were: geographical region, age, gender, sport type, previous experience with injury, and comparison to home country.

Sociodemographic factors provided the background information that helped establish the cultural differences as well as resources available to participants, which helped create the cognitive framework that guided participants' decisions.

For the purpose of this study, sociodemographic data are reported in a generalizable manner to maintain participant confidentiality. Data will be discussed using gender-neutral pronouns to protect the identity of the participants. This data includes geographical region, age, gender, and sport type.

From the sample population, 13 participants, 7 were female and 6 were male. Additionally, 7 participants played team sports and 6 played individual sports. All athletes stated that they played at a high level, and most (participants 2, 3, 5, 7, 8, 9, 10, 11, 12, and 13)

described this level as participating in elite-level organizations such as clubs or national teams.

Remaining sociodemographic information is presented in the table below:

Table 2: Sociodemographic Factors

Participant	Region	Age
1	Africa	25
2	Africa	25
3	Europe	22
4	Europe	22
5	Europe	20
6	Europe	20
7	Europe	23
8	Europe	22
9	Asia	21
10	Oceania	19
11	Latin America	20
12	Latin America	21
13	Europe	22

Geographical region, age, gender, and sport type are straight-forward information about the participants. This information provides important context about participants and their past experiences.

### ***Previous Experiences with Injuries***

Previous experiences with injuries were coded as *experience with injuries and treatment prior to coming to the United States*. As high-level athletes who focused on their sport year-round, it was anticipated that participants would have experiences with injury. During interviews, participants discussed their injury history which enabled them to have a larger conversation around their understanding and management of pain and injury. Before moving to the United States, all participants had experience with injury, reporting, and treatment processes. For instance, participant 11 experienced quite a few injuries and therefore has “experience with treatment, and what I should do.” Due to knowledge of caring for injuries, participant 10 felt like “if it’s something I’ve done before, like a rolled ankle, I know the procedure.” However, the participant continued to explain when it was something new like the “time I broke my nose I went to the doctor straight away. When I broke my hand, I went to the doctor straight away too.” These were only a couple of examples from the participants about how they learned to manage their recovery process and when to ask for medical guidance. The majority of participants (2, 4, 5, 6, 8, 9, 10, 11, 12, and 13) shared similar examples and stories of experiences that informed the researcher that these international student-athletes’ have an idea for managing their injury and recovery.

Previous research has shown that youth and adolescent athletes are likely to experience sport-related injury in both organized and unorganized sports (Belechri et al, 2001). Participants in this study confirmed this research as nearly all participants reported at least one injury throughout their playing careers. Experience with injury is an important aspect of this study, because research has found that previous encounters with a health care system may have an impact on how ISAs interact with health care services (Baum-Mehus, 2018; Whitley, 2006). The

ability of these participants to recall their past experiences with injury enabled them to compare their experiences in health care at home to what they experience in the United States.

### ***Comparison to Home Country***

Comparison to home country was coded as *comments referring to how home countries differ from the United States*. As international student-athletes, the participants identified a number of differences as well as similarities in their perceptions, access, and expectations between their home countries and the United States. For example, “in my country, we have nothing. Here, you have something, and that makes a big difference” (participant 1). Coming to the United States from an African region highlighted this for participant 1 because of the differences in access to sport and educational resources. Beyond resources to sport participant 8 highlighted that “the culture [in the United States] is different. Things feel more formal than they do back home. The participant even felt like their personal behaviors changed because they are held to higher standards in the United States. Other participants noticed differences in culture in the US as well, as participant 12 explained life in the US is “a lot different” than it was in their home country, and participant 7 said “everything [at home] is different. It’s a different country, the culture...it’s different.” It was expected that the lifestyles and expectations for international students would be different from their home countries, but this was not true for all participants as participant 9 said life in the US is “pretty much the same” as it was in their home country.

Literature suggests that international students must adapt to new communication patterns, language barriers, and a new, more rigorous education system (Wu et al, 2015; Constantine & Osaki, 2006; Sato et al, 2011). However, these participants did not consider these factors to be a challenge. There were some student-athletes that felt sport, education, and culture in the United States were similar to back home. Participant 9 said life in the U. S. is “pretty much the same” as



in their home country. These comparisons between life back home and the United States may be due to several factors. One such factor is the major differences in lifestyles between westernized and eastern cultures. Poyzrali and colleagues (2004) note that greater acculturative stress is placed on those who come from non-westernized countries, which could explain why participant 1 noticed such a big difference. According to this idea, participants from European countries shouldn't describe much of a cultural difference between home and the United States. This was true for some participants, but others still noticed slight cultural differences. This may be attributed to the structure of sports in their home country versus what they experienced in America. Research by Tremblay and colleagues (2016) compared the physical activity levels in different world regions. The United States scored lower than most countries in terms of active play and physically active lifestyles but received a higher score on organized sport (Tremblay, 2016). These findings suggest that Americans may not be as physically active, but place a stronger emphasis on structured and organized sports schedules. In other words, the sports ISAs used to do for enjoyment in their home countries now have become very rigid. Additionally, the scholastic model of sports is unique to the United States (Bentzinger, 2016), meaning that for the first time, participants' athletic success relied on their academic success. This multidimensional pressure could require a major adjustment for these ISAs.

It is important for the reader to understand that these ISAs arrived in the United States with expectations of their new home while coming from various countries with lived experiences and knowledge of how life works. Therefore, as they discuss sports, injuries, resources, access, and obligations, it is valuable to note that often statements were made comparing their situations in the United States to those in their home countries. Further, each of the participants have different backgrounds that were based on life chances and choices in their home countries.

## **Culture**

Culture was defined as *the characteristics handed down from one generation to the next, including beliefs, practices, habits, likes, dislikes, norms, customs, and rituals learned from the family*. The four themes that emerged were: family roles and support, role of sports, and religion as a non-factor. Cultural factors are important, as they influence the way participants engaged in the decision-making process.

### ***Family Roles and Support***

Family roles and support was coded as *the structure of participants' family members' roles and responsibilities within the family*. Knowing the roles participants and their family members filled within the family makeup allowed for an understanding of the foundation for their support system. The majority of participants (1, 3, 4, 5, 6, 7, 8, 9, 10, and 13) said their family makeup was common in their home country, whether it be married or divorced. Six participants stated that their parents are married (4, 8, 9, 10, 11, and 13) and made statements like “[my parents are] still together. Just a normal middle-class family” (participant 8). The participants (3, 5, 6, 7, and 12) from divorced settings also said this was common and described positive situations. “My parents were married until I was nine years old, but they’re still good friends. It wasn’t really hard for me and my brother. We saw my mom and dad sometimes together and sometimes separate” (participant 6). Regardless of the setting, these participants described having close relationships with both parents. Within these nuclear families, participants (3, 4, 5, 6, 7, 8, 9, 10, 11, and 12) explained that the primary caretaker within the family was usually their mother. Participants 9 and 11 explained they had stay-at-home moms. “My mom retired when I was born, and my dad worked until I was thirteen” (participant 11). “Only my dad worked. My mom was a housewife” (participant 11). Participants 3, 4, 6, and 10

explained that even though both parents worked, their mothers spent more time at home. In contrast, participant 4 stated “[my parents] were pretty much equal, but my mom took more time off work.” Participant 10 described their parents’ roles by saying “my mom used to be an international student counselor...but my dad is the primary financial provider and my mom was mostly stay at home.” Understanding that the participants’ parents were their main caretakers was important for this study because it shows that participants were used to relying on someone other than themselves to provide care.

Participants 1 and 2 identified a family makeup that differed from that of other participants. Both describe spending time with extended family members. “My mom spends most of her time in her home country ... and I lost my dad a long time ago. All my siblings, we stay at my grandmom’s house” (participant 2). The grandmother raised the participant and they had a close relationship because of their life situation. Participant 1 remained close with their siblings and biological parents but noted, “I spent 3 years living with my auntie so technically it was my auntie who took care of me.” These two participants described their own roles and expectations in their families, which included taking a leadership role in the family. Participant 1 explained a desire to help the family by saying “we support [our parents] emotionally and financially. We provide for our parents. We make sure they’re comfortable...it’s a thing in my country, children taking care of their parents when they have some money.” Participant 2 also identified expectations for their role as well as sacrifices they have made to support their family. “I haven’t gone home in five years but when I have money, I send it home.” They explain that their athletic abilities come with a responsibility to use them, saying “this is my talent God gave me, so I have to utilize it to help my family...to help support these people.”

Family support provided participants with resources they needed to achieve the goal of becoming high-level athletes, as well as allowed them to develop trusting relationships with those around them. Most participants' (1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13) described their parents and siblings playing some role in the support systems. "My brother wanted to play soccer, so [my parents] were super supportive of that, and I wanted to play [my sport] so they were super supportive of that too" (participant 6). "When I was born, my brother was 24 so he could take me places and everything...he actually convinced me to come here" (participant 11). An extended family member had a major impact on a sport career for participant 2, as their uncle introduced sport and "he looks upon me like I could be something great...he got me a scholarship and he helped get me here." Each participant described family members in which they confided, meaning that all participants were used to turning to other people for advice, guidance, and support.

In an analysis discussing family structure and resource accessibility in developing countries, Lloyd and colleagues (1992) suggest that children living in developed countries are more likely to live within a nuclear family structure. In situations where biological parents are not together, children in developed countries spend most of their time with their mothers while still maintaining access to both parents. This was consistent with what ISAs in this study reported. Participants from developed countries all described that they had good relationships with both parents but viewed their mothers as their primary caretaker. Participants 1 and 2, who were from a developing country, described family makeups that differed from other participants. Both explained living with extended family members as well as their biological parents. Participants 1 and 2's perceived obligation to take care of their families is consistent with the concept of familism, an ideology that is more common in cultures found in developing countries

(Corona et al, 2017; Abesiekong, 1981). Familism suggests that individuals have a responsibility to support their families mentally, emotionally, and financially (Corona et al, 2017). Participants 1 and 2 describe taking actions to meet these expectations. These participants' actions and decisions are centered around their responsibilities to their families. This is particularly important as these international student-athletes may place more emphasis on how consequences associated with injury (which are discussed in future sections) may impact their ability to support their families.

Literature regarding the family as a support system suggests that children and adolescents rely on their parents, siblings, and occasionally extended family members to provide emotional support and access to whatever resources they need. Lloyd and Desai (1992) state that the ability to access certain resources depends on the proximity of adults, usually family members, who provide them. These resources include essential care, economic support, and access to health care. Family structure plays a role in support in multiple ways. First, resources are easier to access when parents are around to provide them (Lloyd & Desai, 1992). For most of the participants in this study, that was the case. Even participants who did not live in traditional nuclear families had access to at least one family member who supported them. Secondly, the presence of siblings can either act as a source of support or conversely, create competition for resources (Lloyd & Desai, 1992). Participants in this study described the former, as several described siblings as essential members of their support systems. Participants in this study described the support they received from their family members primarily in the context of sport. Many described familial involvement in both the decision to begin sports and the decision to move to the US. This level of support was necessary in order for student-athletes to access the resources necessary to enable them to move to the United States.

ISAs in this study indicated close relationships with family members. Moving to another country, away from family means that students no longer have quick and easy access to their support system. Research on international students highlights that one of the major struggles for people who migrate to another country for school is they have higher levels of stress and are slower to acclimate because of not having a support system (Bradley, 2000). One of the advantages of being an ISA within the NCAA is that some level of support is continued as soon as student-athletes arrive on campus. Though they are separated from their families, university athletic departments provide ISAs with athletic academic advisors, athletic sport supervisors, teammates, coaches, and athletic-related health care (Bentzinger, 2016; Sloan, 2005; Newell, 2016; NCAA, 2014). ISAs are essentially provided with an entirely new support system to help them transition to life as a student-athlete. This continued level of support may explain why these participants did not report as many difficulties with academic adjustments, communication, loneliness, and isolation that the literature suggests international students would. Menzies and Baron (2014) found that international students that joined clubs and developed friendships had higher levels of satisfaction because they found support within the university (Baron & Menzies, 2014). Lertora and colleagues made recommendations to develop a sense of community for international students before arriving on campus so the transition could be smoother (Lertora et al, 2017). These studies highlight that traditionally, international students are provided with support by the university, but often have to seek this out on their own. The support system required both prior to and after moving to America serves as one distinction between ISAs and traditional international students.

### ***Role of Sports***

Role of sports was coded as *discussions about the importance or structure of sports in the home country*. Participants discussed that children's initial involvement in sports in their home countries was primarily for fun that grew increasingly competitive, yet their processes are different from the United States.

When asked about why people started playing sports in their home countries, participants often compared their structures to what they see in the United States. Most participants (1, 5, 6, 8, 9, 10, 12, and 13) described sports as something they began doing for enjoyment or because all kids play sports. Participant 13 explained, "it's something you do for fun at the beginning." In the case with these participants, who all played at a high level in their countries, they each recalled how athletes go from recreational (fun) to being more serious. Participant 6 explains that "most people start for fun, but if coaches see that kids have talent, they start playing more...it starts getting more competitive." Participants identified this process being similar to the United States, but they acknowledged that there were differences with what people in their countries could do with sport.

Several participants (1, 4, 5, 9, and 12) explained that the opportunities to build a career out of sports were limited. Participant 5 explained that "every kid wants to be a [professional]," and in a similar response, participant 11 explained because of this "it gets serious very quickly. When you're 10 years old already, you can go to a club, a professional club, and start like, you know, to practice regularly." This path was taken by most kids who wanted a professional career, but even within these clubs, opportunities were limited. Other participants explained that since sports were not taken as seriously in their home countries, there were no clear paths to professional sport. Participant 12's perception of sports in the United States was "if a kid starts

playing a sport, the family knows that in the future it will be possible for the kid to get an education paid through sports. And all the schools here give so much support to sports.” This view highlights American parents’ knowledge of future opportunities in sport for their children to play beyond recreational levels. The participant continues by saying, “back home it’s not like that...there’s not many paths.” Participant 4 focuses on the cultural view and value placed on sport in the United States. “You guys have strong emphasis on sports all through high school, through college. And there’s so much money in it. [In my home country] we don’t have all the money that goes into it.”

Participants explain that the lack of value and opportunities surrounding sports reduces the support, drive, and encouragement that young athletes have to participate in sport at a competitive level. Due to this, the participants discussed differences in schedules of participation. Participant 4 said, “we compete all throughout high school, but not to the standard that you guys do [in the US].” Additionally, numerous participants (6, 10, 12, and 13) explained that sport structures were separate from school. Therefore, in the United States, kids and families place an emphasis on school and sport together, while sport and school were divided in their home countries. The participants’ cultures view sports differently from US culture. Many participants explained the pathways to professional sports having fewer steps than in the US, which limits opportunities to build careers and reduces the levels of competition. Participation in collegiate athletics requires participants to adapt both physically and mentally to increases in intensity of training, schedules, and competition while also including academic expectations.

The participants did, however, explain benefits and resources that came along with being high-level athletes. For example, medical benefits were provided through club memberships. For instance, the club gave participant 5 private health insurance, which expedited the health care



process. “So, I needed an x-ray...normally you’d have to wait two months but with the private [insurance] you could get it the next day.” The national team provided incentivized, performance-based coverage for physical therapy appointments for participant 9, who explained, “if you hit a certain performance, you get [appointments] for free.” These participants were provided with resources that allowed them to maintain health and perform at a high level.

Additionally, the high level of sport participation granted access to certain educational opportunities for participants 1 and 2, including scholarships throughout middle and high school. Participant 2 explained having athletic scholarships for most of their educational experiences, stating “when I was in middle school, I got my first scholarship and I’ve been on scholarship ever since.” These two participants have some experience with education being linked to sport.

Participants 10 and 12 described receiving assistance to continue to play their sport. “We have agencies that help with [recruitment]. They put in the national ranking, everything you did, and they put you in contact with coaches in [the United States]” (participant 10). While participants were not always able to receive scholarships in their home country for middle school and high school, their athletic abilities provided them with resources that others may not have had.

ISAs in this study participated in sport through both public and private systems. Participants 3, 5, 6, 7, 8, 10, and 11 had experience as club sport members and described utilizing resources, which often included medical care and athletic development assistance. Participants 5, 8, and 11 had medical care through their club membership. Further, club sports are privately run and are created to groom members to become professional athletes (Bentzinger, 2016). Participants 8 and 11 explained that their clubs taught them about the lifestyles of professional athletes. These participants explained this as having to practice long hours and

travel all over the country to play. Participant 8 explained professionalism as following strict diets, keeping regular sleep schedules, taking care of their bodies, and focusing on skill development. In addition to learning the lifestyle of professional athletes, clubs expose athletes to opportunities such as access to a university scholarship in the United States. Participant 10 explained the significance of their club coach because they put them in contact with American coaches. Participant 10's club coach appeared to have some understanding of the American system, as he helped athletes get recruited by American universities. Participant 11 described having guidance from a family member when chasing the professional dream. Although participant 11's coach exposed the athletes to a professional lifestyle and experts, all members in the club do not make it professionally. Yet, Hosick et al (2011) highlight that in some cases as athletes get older, clubs provide athletes with payment or benefits to continue playing (Chalip et al, 1996; Hosick et al, 2011). This positive benefit can have a negative impact on obtaining a United States college scholarship because payment of players before university careers is against NCAA legislation, which jeopardizes NCAA eligibility. For participant 11 who had guidance from a brother, such understanding could explain why they chose to forgo club membership status, especially if they were uncertain of the trajectory of their professional career. Because the goal of club sports is to prepare participants for professional careers, the nature of sports becomes competitive from a young age.

Not all participants in this study had the opportunity to participate in clubs and therefore engaged in sport through public systems. These systems tended to be more leisure-oriented than competitive like club settings. Chalip and colleagues (1996) suggest that federally regulated sports are created either to engage public health or to train athletes to represent the country at international events. Participants 1, 2, 9, 4, and 13 described their sport experiences being more

aligned with this public system which is often determined by cultural and country resources (Chalip et al, 1996). Participants 1 and 2 were from the same country and played the same sport but described vastly different structures and resources provided. These participants' experiences within the same country demonstrated what Chalip and colleagues (1996) discussed; some countries aim to succeed at international competition will allocate a large amount of resources to talented athletes. Participant 2 discussed competing for their national team and described training and health care-related resources they received as part of that involvement. Their experience with federal sporting provided them with an intense, competitive sport environment that encouraged and supported them to be the best athlete. Participant 1 described having minimal structure or support for their involvement in their sport within the same country, likely because they were not a part of the select group that received the majority of resources. For this reason, they explained that their involvement in sport was primarily for enjoyment, and they did not consider furthering their athletic career until they were older and realized their talent. In countries where sports are aimed at increasing public health, resources are more evenly distributed in order to allow as many people to access sport as possible. These sports are not as competitive, as the primary objective is to promote engagement in physical activity. Participants 4 and 13 both described experiences in these types of sports, as both began sports as a leisure or social activity and did not intend to continue competitively until they realized the extent of their talent later on.

It is important to consider that the scholastic model of sports as it pertains to higher education is unique to the United States (Bentzinger 2016). For this reason, even participants who potentially could have pursued professional careers back home chose to come to America. The ability to receive an education provided them with an alternative career path in the event that their professional careers did not pan out. In some cases, participants described limited

opportunities to play sport back home, either because they would be required to choose between continuing their sport or attending university. In others, opportunities were limited because professional organizations did not exist or weren't accessible. Despite varying structures, support, and value of sport, all participants chose to move to the United States because this particular opportunity was unavailable elsewhere.

### ***Religion as a non-factor***

Religion as a non-factor was coded as *comments about religious practices or beliefs and their effects on life and decision-making*. The theme of religion as a non-factor emerged because when asked about religious affiliations and its role in decision-making the majority of participants (4, 5, 6, 7, 10, 12, and 13) explained that they did not actively practice a religion. Participants 1, 2, 3, 8, 9, and 11 did identify with a religious affiliation and explained that they occasionally rely on it for guidance, but it plays only a small role in the decision-making process. Participant 11 said, "I feel that I'm a Christian person, but I don't practice as much now." However, the participant admitted trying to incorporate Christian values by trying "to make my decisions based on the bible ... I try to be kind, to help people." Participant 3 stated, "my mother's side is Catholic [but it is not something that controls my decisions." Participant 9 both identified and practiced the Muslim religion. Ramadan falls within the participant's competitive season, and therefore the participant does "fast [while the sun is up] for like a month...no eating, no drinking the whole day." The participant illustrated making decisions during Ramadan based on the Muslim affiliation. Only one participant referred to trusting in God to guide medical decisions. "The way God made our bodies...we can fight certain things" (participant 1). Within this participant's culture, it is common for people to turn to God to see the right mode of treatment.

Literature suggests that religion often plays a role in the way immigrants view health care, as it may explain causes of illness or guide people to use certain courses of treatment (Rumun, 2014; Andrews & Boyle, 2008). Although participants 2, 3, 8, 9, and 11, identified affiliating with a specific religion, they did not indicate using their faith to make daily decisions, especially those linked to health. These behaviors are not consistent with literature as some belief systems use religion to explain the causes of illness, and therefore influence the way people regard treatment (Andrews & Boyle, 2008). One participant (1) from a low-resource country indicated trusting in God to recover from illnesses rather than needing to use medication. This thought process is consistent with Rumun (2014) who highlighted that high levels of belief in God align with the belief that there is no need for medications and immunizations. However, in this study with international students representing various cultures, the participants did not align their decision making to their religious affiliations.

### **Life Chances**

Life chances were coded as *the opportunities available to a person that enable him/her to acquire a particular lifestyle*. The emerging themes were structure of health care in home country and access to sports medicine. Participants' life chances highlighted the resources they were accustomed to using in their home countries, which influenced their perception of resources in the United States.

### ***Structure of Health care in Home Country***

Structure of health care in home country was coded as *comments referring to governing body, types of facilities, types of providers, referral processes, or quality of health care*. Each participant had some understanding of how health care worked in their country. Several participants (3, 4, 5, 7, 8, and 10) described health care systems that were nationally government-

funded and operated, which were thought to be low-cost and manageable. Health care is “a national health service. So, if you’re a citizen, you’ve got free health care. It’s not the most efficient system...but you’ve got accident and emergency at hospitals around where you live and lots of different clinics so you’re well covered” (participant 3). “The government pays like 90% of the charge so it’s pretty cheap. You don’t have to worry about ‘oh it’s going to cost me this much money.’ You just go to the doctor if you have to go” (participant 7). These services were available to all country citizens.

Some participants’ (11, 12, and 13) families could afford supplemental private health insurance. Through these plans, participants described speeding up health care processes and having access to more facilities. “There’s a lot of different options, so you could get the affordable ones. But publicly, the public hospitals are awful. So that’s why people try to get [private] insurance so you have a lot of different options” (participant 12). Private insurance created higher standards for the health care system than national health insurance. Participant 13 described the value of both insurance plans: “if it’s something you need taken care of at this moment, like I tore my ACL, I went to the private one...but if you have cancer, or something like that, you go to the public one” because public facilities are better equipped to provide long-term, continued care. Participant 11 described a slightly different structure as the public facilities are used “for simple stuff such as vaccinations or if you get the flu, but if you need treatment for cancer, surgery, or heart disease, you’ll be waiting for a long time.” The availability of supplemental coverage provided these participants with multiple affordable options for high-quality care.

In some countries, the government regulated the cost of care. “The government has made [health insurance] mandatory so everyone has to have a health care plan, which means the price

of health care is way lower” (participant 6). Participant 10 also described government regulation of health care costs, explaining that their country has a system in place that allowed lower-income families to pay less for health care services in order to make health care affordable. All participants had a clear grasp of how health care systems in their home countries worked. Some of these participants explained firsthand experience with the system while others explained observation of family members’ experiences.

In developed countries, health care existed in both public national health services and a combination of public and private forms. Participants 3, 4, and 5 described having access to a national health service. Cockerham (2012) explains this system as publicly run health care that is paid for primarily through taxation. The participants who utilized this health care explained it similarly, noting that health care was available and affordable for all citizens. Other participants described using public and private health care services. These services were kept affordable through government-mandated and regulated insurance policies (Holm et al, 1999; Chongsuvivatwong, 2011) These participants’ experiences were consistent with this research, as participant 6 explained their country’s government required citizens to have health insurance, but regulated the price of insurance to keep health care costs down. Participants 6, 9, and 13 described appreciating the flexibility of utilizing either public or private facilities based on the situation. While some noted inconvenient wait times at public facilities, they described private facilities as a suitable alternative. The general understating among participants from developed countries was that high-quality health care was available and affordable, and they would not hesitate to seek it when they needed it. This easy access to health care influenced the way these participants interacted with health care in America. Participants 3, 5, 7, 8, 9, and 10 acknowledged the high-quality of care in the U.S. but perceived this care to be significantly less

affordable compared to the same high-quality care they received at home. This perception is consistent with research that has found American health care costs to be higher than those in other developed countries (Cohen, 2016; Ramsey, 2013). While these participants had a pretty good idea of what health care they would receive, the cost of health care served as a barrier to seeking care.

Participants from developing nations described less consistent access to health care. These countries are all in the process of implementing national health care plans but have not been able to do so as efficiently (Laurel & Giovanella, 2018; Grigorov 2009). Though public health care in Latin America has been made affordable, Savedoff (2009) reported that health care quality varies with income. Participants 11 and 12 described their privileged experiences within this system by explaining that in order to receive appropriate care, they had to visit private hospitals. Participant 11 explained that they had access to quality care but acknowledged that it was not a viable opportunity for everyone in their country. Participants 1 and 2 were from another developing country and also discussed limited access to consistent health care. These participants indicated being appreciative of the availability of high-quality care because they felt it was better than what they received in their home countries. However, participants 1 and 2 both described situations in which they preferred to manage their health care on their own because they were used to doing the same in their home countries, where access to health care was limited. The ability to access health care either enabled or prevented participants from receiving health care in their home countries. For participants with easy access to high-quality health care, this care sometimes included sports medicine.



### *Access to Sports Medicine Professionals*

Access to sports medicine professionals was coded as *comments about health care providers associated with or provided by sport or responsible for the care of sport-related injuries*. Participants 5, 8, 11, and 12 had physiotherapists that functioned similarly to athletic trainers in the United States because they were affiliated with a club or team and were present at nearly all team events. Participant 5 said “there were three or four [physiotherapists]. Two of them would stay at home for any injured players so they could count on that rehab and two would travel with the team.” Similarly, participant 8 said “athletic trainer [and] physical therapist is pretty much one job ... he works eight to noon taking care of people in town and in the evening, we’ve got training, he’d be with us. It’s the same stuff an athletic trainer would do.” Participant 11 described the job of a physiotherapist as “they take care of you when you get injured, they help you get back, and they help you to not get injured again.” Participant 5 described similar responsibilities, noting that their physiotherapist would refer to additional health care providers if they could not treat the injuries themselves. These participants had experience working closely with sports medicine professionals on a daily basis.

Participants 4, 6, 9, 10, and 13 described having physiotherapists that functioned similarly to physical therapists in the United States because they required appointments, referrals, and sometimes cost money per visit. Participant 6 explained, “we have a physio, and you have to make an appointment to get there, and sometimes you don’t feel like making an appointment or such an effort to go, so you wait longer.” Beyond slowing recovery time because of the daunting task of making an appointment, there can be limits on the number of visits or expenditures. “You only have a certain amount of physio [visits] in your health care plan so you can’t just go every day because that’s basically impossible” (participant 6).

Participant 10 explained that rehabilitation and recovery were up to the athlete, as physiotherapists were not always immediately available. Therefore, when asked if physiotherapists were similar to athletic trainers, participant 10 stated “not really, because you had to seek them out on your own. Some tournaments might have a physio that could strap ankles, but for the most part, I did it myself.” These participants were accustomed to going to a place not linked to their sport for treatment, and because of this, the athletes used self-treatment techniques instead of seeking consistent guidance. Participant 1, who noted a lack of support for sport in their hometown, explained that “such careers are not there.” However, participant 2, who was from the same country, described having access to physiotherapists when participating on the national team. They said, “we have physios only when you [participate] for the national team, when you’re going to represent your country.” However, it was found that these physiotherapists were not always reliable. “They really don’t help at all. Most of the time, the athletes, we are on our own.” Even though this participant had access to sports medicine professionals, they opted not to use them.

The participants highlighted having varying levels and understanding of sports medicine professionals. Grant and colleagues (2014) explain that physiotherapists in westernized countries function similarly from country to country. Participants 5, 8, and 11 discussed having physiotherapists that worked directly with their club and were present at all club events. This is consistent with literature, as Lafferty and colleagues (2008) explain that club-contracted physiotherapists are embedded within sport organizations. Club-contracted physiotherapists functioned similarly to athletic trainers, and these participants were able to recognize this. In contrast, the literature also highlights physiotherapists that were not linked with sport and worked at public or private clinics (Lafferty et al, 2008). If compared to the US, these

physiotherapists were similar to physical therapists. Participants 4, 6, 9, 10, and 13 described having less access to these providers and had to go to a clinic-based facility for treatment. These participants expressed frustration with this limited access, as participant 6 indicated they would allow injuries to worsen because wait time and the process of scheduling appointments could be frustrating. These participants' complaints were consistent with Grant and colleagues (2014) finding that not having direct access to physiotherapists led to worse patient outcomes.

The majority of the participants were from resource-rich countries. Since they all played at high levels, most recalled having access to some form of sports medicine professional. However, participant 1 described not having access to physiotherapists at all while participant 2 described very limited access. Both participants are in regions where their health care systems are evolving, and the availability of sports medicine is minimal. Research from the African region acknowledges that sports medicine is in the early stages of development, as it is just now being recognized as a necessary aspect of primary care (Kordi et al, 2011). Sport is treated as a leisure activity in most African countries (Chalip et al, 1996), so the level of support provided to athletes is lower than that in other countries, and the profession of sports medicine and investment in athletes' health is just starting to develop. Therefore, participant 2, who played for her national team, described having limited access to a physiotherapist, while participant 1, who participated at a lower level, thought sports medicine specialists did not exist. Literature regarding health care in the African region highlights the struggles of health care to meet the needs of the general population (Akukwe, 2015). Therefore, specialist care may not be accessible.

The information provided thus far is important as it provides the background knowledge necessary to understand the cognitive framework that guides participants through the decision-

making process, which will be discussed in the next sections. While participants come from a variety of different places, most of them were raised in resource-rich countries. They grew up in loving homes and were used to receiving support from family members, coaches, or friends. Most participants had access to affordable health care and the resources necessary to succeed in sport. While the level of competition was lower than that in the United States, all participants had access to the support they needed to receive a scholarship in the United States. The combination of their life chances and cultural factors are what help to establish the habitus that guides participants' decisions and actions and are therefore crucial in understanding how international student-athletes engage in the health care-seeking process.

### **Habitus**

Habitus was defined as *a cognitive map or set of perceptions that routinely guides and evaluates a person's choices and options*. The five emerging themes were: definition of health, definition of injury, actions to maintain health, and scholarship expectations. Participants' habitus established the thought process and factors they take into consideration when choosing to seek care.

### ***Definition of Health***

Definition of health was coded as *participants' understanding of what it means to be healthy*. Regardless of the participants' backgrounds, all the participants defined health in relation to being able to participate in their sport; emphasizing an ability to perform daily activities. For example, not having an injury was a major part of being healthy for participants 5, 6, 8, 10, and 11. "To be physically healthy is to be injury-free" (participant 10). Participant 6 stated that being healthy is when "you're not hurt." Participant 5 concurred and furthered this idea, stating "being able to run around and play sport without getting tired or dizzy." In other

words, the participants highlighted that they understood that being healthy allows them “to do the things you want to do: exercise, being with your family on a regular basis” (participant 11).

Some participants (1, 2, 3, 4, 10, 11, and 13) mentioned mental health as a factor within the definition of health. They made statements like: “if you’ve got a clean slate of mind, you’re happy” (participant 3); “to be mentally sound, [to have] no mental health problems” (participant 10); “being happy within yourself” (participant 4); “feel good with yourself” (participant 13); and “healthy starts from the head...when it starts from the head, you love yourself better, you take care of yourself better, and then you want to know what’s going on in your body” (participant 1). These participants recognized that as athletes, if a person has doubt in themselves or are not mentally engaged with their activities, this will limit their ability to perform in their sport at an optimal level. The participants’ understanding of health was important because it helped frame a larger picture of what they said would limit or reduce their ability to perform.

Despite knowing that there are a variety of definitions for being healthy, when asked about how these participants understood health, the majority (3, 5, 7, 8, 10, 12, and 13) linked it to their experiences as an athlete. For example, when asked about how they developed their understanding, participant 12 stated, “through sports and different life experiences.” Similarly, participant 8 described learning from experiences as a club-level athlete.

Research on the understanding of health has previously indicated that westernized cultures view health primarily as a physical state, and non-westernized countries view health as a mental and emotional state (Weerasinghe & Mitchell, 2006). Similarly, Pavlish and colleagues (2010) highlighted that western medicine believes health to be a physical state and that imbalances in health were corrected with specific biological solutions. This understanding of health contrasted with the health beliefs of participants in their study, who were from non-

westernized countries. These participants viewed health more holistically, explaining that health required the ability to live a productive life, having strong relationships with themselves and their family, and ensuring the prosperity of their family and community (Pavlish et al, 2010). This holistic view of health was consistent with what participants discussed when defining health. Participants 1 and 2, who were both from a non-westernized country, did describe their understanding of health to be primarily determined by their emotional state. However, this understanding of health was not unique to these participants as the majority of participants from westernized (3, 4, 10, 11, and 13) countries emphasized the importance of emotional wellness as well. The emphasis on emotional wellness may be attributed to the various stressors faced by ISAs while adjusting to life in America.

Participants in this study also described the importance of physical health. Emphasizing physical status as it pertains to health is thought to be attributed to westernized medical ideologies (Weerasinghe & Mitchell, 2006). However, participants in this study described that their understanding of health was not developed from a cultural perspective as much as it was developed from their experiences as athletes. Participants 5, 6, 8, 10, and 11 all emphasized the capacity to participate in sport as essential to being healthy. The opportunity to continue their athletic career is a primary motivating factor in the decision to move to the U.S. (Popp et al, 2009). Having the capability to perform their sport appeared to be the participants' primary priority and was the basis for their understanding of their overall health. Having knowledge of the factors that create participants' understanding of health is important because it establishes a baseline for how participants think they should feel in order to live and perform optimally. As health care providers, it is the job of athletic trainers to help student-athletes maintain their health standards, and it is necessary to know what these standards are.

### ***Definition of Injury***

Definition of injury was coded as *participants' understanding or recognition of injury*. Most participants linked their definition of injury to the ability to play sport. Participants 4, 11, and 13 suggested that injury negatively affects the body. These could be as minor as “when something is bothering you on your body” (participant 13) or as major as “when you damage some part of your body” (participant 11). Participants 5, 6, 7, 8, and 10 understood an injury being linked to their ability to perform in their sport. For example, participant 6 defined injury as “something that keeps you from playing your best in your sport,” with which participant 8 concurred and referred injury as not allowing an athlete to “perform optimally.” These ISAs felt they had a responsibility to perform as an athlete; for example, participant 5 explained that their understanding of injury means “not being able to participate any longer due to a lot of pain.” In this study, understanding injury was aligned with how pain felt in the athletes’ bodies as well as how their sport performance would be impacted. This is an important consideration as participants may not recognize discomfort as warranting care until it limits them from participating in sport, which is something they feel obligated to do.

The recognition of injury as something that affects performance is common among collegiate athletes. In a study about injury reporting, student-athletes didn’t report some minor injuries because they felt aches and pains were an inherent part of sport (Baum-Mehus, 2018). Most of the athletes in Baum-Mehus’s study claimed they would recognize an injury only when it inhibited their ability to play or complete their normal daily activities. This is consistent with what participants in the current study reported. Multiple participants (11, 12) explained that they experienced pain regularly, but only became concerned when it impacted their ability to function. This reluctance to acknowledge pain may be attributed to “sport ethic,” a term used to

refer to the glorification of athletes who play through pain (Malcom, 2006). These ISAs' recognition of injury as something that limits their ability to play implies that they may not disclose pain that they perceive to be a 'normal' part of sport. Understanding how participants recognize injury provides valuable insight on how international student-athletes engage in the process of seeking medical care.

### ***Actions to Maintain Health***

Actions to maintain health was coded as *preventative strategies or home remedies aimed at preventing injury or illness or staying healthy*. Maintaining health and reducing the likelihood of injury were important for these participants so they could continue to participate in their sport. One idea to maintain health included properly fueling the body. Several participants (5, 6, 7, 8, 10, and 11) felt the most predominant factor was to follow a healthy diet. The participants explained "I eat healthy. I eat vegetables, fruit, and I get my vitamins and all that I need through a healthy diet" (8) or choosing to stay away from foods thought to be unhealthy. "I don't like fried foods, foods with high fat. Eating healthy... I'm conscious about that. I want to maintain what I eat at home so I can stay healthy" (6). Participants explained that fueling their bodies with clean, nutrient-rich diets was essential to maintaining health and being able to perform as high-level athletes.

Another thought to maintain health was linked to consistency of sleep. Participants 8, 9, and 12 perceived a good sleep routine being part of maintaining health as they explain trying "to go to sleep at the same time and wake up at the same time every day" (8) or aiming for "eight hours of sleep each night" (9). Getting adequate and consistent sleep was a factor that several participants described as important to maintaining health and performance.



Along with sleep, these competitive athletes found that they needed to continue to exercise outside of team settings and during their off-seasons. Participant 8 explained “I do a lot of exercise. I play [my sport], I work out with the team, and I do some extra work [at the recreation center].” This allows the athlete to work on skills or strength training that they feel are being missed from just the team workout. Other participants (2, 7, 9, 10, and 12) had a list of exercises and movements that helped them prevent injuries. For example, participant 2 explained stretching routines learned from other athletes to maintain mobility because they are not done in team settings. Participant 2 stated “I do exercises that I know are effective for me...I know how to stretch.” Participant 12 linked the need to stay healthy to age and explained they reached out to their athletic trainer for guidance on what needs to be done to maintain health: “I am getting older and it takes me longer to recover... I try to stay on top of my health each and every week. I feel like I’ll change [the way I used medical resources] because I’m preventing.”

Previous research has shown that immigrants generally move to the U.S. with better overall health status than domestic populations, but that their health status declines as their time in the US increases (Williams et al, 2010; Msengi et al, 2011). According to Tremblay (2016), health-promoting behaviors are more common in countries outside of the United States. These behaviors include healthier diets, increased physical activity, and decreased drug and alcohol use (Kandula et al, 2006; Castro, 2008). As high-level athletes and people migrating to the United States for their sport, the participants in this study showed a strong fundamental base for health in their actions to stay healthy. Participants 5,6,7,8,10, and 11 all maintained healthy diets by avoiding certain foods and including a variety of nutrients. Other participants (2, 7, 8, 9, 12) describe maintaining sleep schedules as well as maintaining the physical activity levels they were used to having prior to moving to the US. As student-athletes, participants felt obligated to

stay healthy. The research also talks about immigrants and international students adopting American health behaviors, which places less emphasis on healthy, active lifestyles (Tremblay et al, 2016). As Newell (2016) pointed out for international students, one reason is because of limited access to native foods, and therefore student-athletes ate what they had access to in the United States. The participants in this study did not mention this as a barrier, but instead, participant 6 stated choosing to not eat fried foods or sweets. During discussions about health, the participants kept returning to their obligation as an athlete which, meant it was their job to maintain their health. Consistent with what research has found, they knew that adopting American lifestyles would lead to decreased overall health status, and therefore made a conscious effort to maintain the health behaviors they learned at home (Williams et al, 2010; Msengi et al, 2011). Acknowledging the effort ISAs put into maintaining their health may lead to a greater understanding of the frustration surrounding injury. ISAs intentionally take measures to protect their health but are subjected to the consequences of injury anyway.

### ***Scholarship Expectations***

Scholarship expectations were coded as *participants' perceptions of responsibilities associated with receiving an athletic scholarship in the United States*. While participants acknowledged that having a scholarship was a positive opportunity that most were unable to receive back home, they explained that this opportunity came with responsibilities and expectations.

Through the interviews, it became apparent that the participants viewed the college scholarship as a contract between them and the university sports team. Participants described making decisions or engaging in behaviors that were guided by the expectations placed on them as student-athletes. Participant 1 explained "I know how things work here...with how contracts

work, being on full scholarship, I depend on my scholarship 100%.” Participant 8 explained that this contract is “a little more formal than they were back home. I maybe won’t get away with as much as I would there.” This participant described coaches having rules in place that governed behavior in a way that was not experienced in sports at home, even at the highest levels. In addition to behavior expectations, participants explained that upholding their end of the contract included athletic performance. Participant 4 said, “being on the team, I have the expectation to come to practice every day as healthy as I can be.” In exchange for receiving a paid education, participants were expected to contribute to team success.

The participants identified pressure that came along with the scholarships. As presented in the role of family members, participants 1 and 2 both felt obligated to return home after college to help their families. Participants 1, 6, 10, 11, and 12 discussed that part of the pressure they felt to succeed derived from the fact that receiving an athletic scholarship was not a common option in their home countries. Participant 12 elaborated on this by saying “there are not many paths in [my sport] back home. Coming here is the path... [in my country] you cannot play for a college or university.” Participants 4, 6, and 11 explained that while there were opportunities to continue playing their sport, they did not include the ability to receive an education. Participant 11 stated, “at first, I was reluctant to come here because I was very focused on becoming a professional [athlete at home], but my brother convinced me it would be better to get an education and pursue my professional career here.” For participant 6, going to college at home meant giving up sport participation as “at a competitive level [going to school and playing a sport] is nearly impossible. Back home, college or university is a 9-5 job and people stop playing competitively.” Participants were drawn to the United States because they were able to obtain an education while continuing to play their sport at a competitive level.

All the ISAs in this study received athletic scholarships which afforded them the opportunity to continue their sport while receiving an affordable education. However, each participant was aware of expectations that created added pressure of being a student-athlete. Bentzinger (2016) highlighted that the scholastic sporting model is unique to the United States. Several participants (1,4, 6, 11, 12, 13) acknowledged that they were unable to receive this opportunity at home. Participant 12 loved participating in their sport and realized people did not take the sport seriously in their home country, so coming to the US opened a door for four additional years of competitive play without being a professional athlete. Beyond such opportunity, the participants discussed an added stress that is often not discussed before choosing to accept a college scholarship. Sato (2011) found that their ISAs felt like they were pressured to maintain their grades and in fact, their international status made those research participants more focused on grades than their teammates. The participants in this study, however, did not discuss the need for high grades but instead focused more on the expectation to perform well in their sport. Participants referred to the scholarship as a contract, which meant that this participant felt like they always had to perform for the coach, the team, and all parts of the sport team. This pressure was compounded by increased responsibilities associated with being a student-athlete. Sato and colleagues (2011) highlight that for the first time, student athletes' athletic success depended on their academic success. ISAs in Sato et al's (2011) study described the stress of balancing academic and athletic schedules, especially knowing that academic shortcomings affected their ability to compete. Participants 11 and 12 highlighted their personal experience with this stress. Both explained that while their athletic schedules were comparable to what they experienced at home, they noticed a dramatic increase in responsibilities outside of sport.

In addition to academic stress, previous research has indicated that ISAs struggle to understand NCAA rules and regulations. ISAs do not fully comprehend what NCAA rules are, but they are aware that infracting those rules jeopardizes their scholarship opportunity (Sato et al, 2011; Bentzinger 2016). This previous research helps to explain why participants in this study felt they had to act in certain ways to uphold their end of the contract. Participants know there are certain rules they have to follow. Participants 1 and 8 both explain having to alter their behavior to meet the expectations placed on them by the athletic department. there is little research on how this position affects ISA's interaction with health care, but participants in this study describe their role as a delicate balance.

In addition to academic and athletic expectations, the participants highlighted an added stress from expectations from family and support systems. There is no literature that addresses stress on ISAs because of family and support system demands. However, in this study, both participants 1 and 2 are expected to return home with their degree and to use it to help the family. Participant 11 is expected to return home and potentially have the skills to go professional. Although not directly stated, other participants alluded to being the first person on the team or family to come play sport in the US sport system. There is an expectation for each of the participants to be successful academically, in the US sport structure, and living abroad to then bring that knowledge back to their home country.

As student-athletes on an athletic scholarship, ISAs are expected to play with a certain amount of intensity in order to earn their place on the team. However, they do not want to become injured, because they know it affects their ability to perform, which then affects their playing opportunities and their ability to earn their scholarship. When they do become injured, they fear the consequences of injury but feel pressure to report the injury and receive treatment

because that is what their coaches and teammates expect them to do. Acting in certain ways to meet the expectations of coaches, teammates, and NCAA regulations was a common theme among participants in this study and of previous studies (Sato et al, 2011). ISAs fear the possibility of jeopardizing their athletic scholarships, so they sacrifice autonomy in order to meet the expectations of those around them.

### **Life Choices**

Life choices were defined as the *self-determination of one's behavior that is enabled by his or her interpretation and limited by life choices*. The three emerging themes were: decision-maker when seeking care, knowledge of US health care, consequences of injury, and willingness to comply. Life choices describe the health behavior of ISAs while participating in collegiate athletics.

#### ***Decision-Maker When Seeking Care***

Decision-maker when seeking care was coded as *people to whom the participants claim they report illness/injury to or whom they turn to first when seeking health care*. This theme emerged as most participants explained that someone other than themselves was ultimately responsible for making the decision that it was time to seek care in their home countries. When asked who participants reported injury or illness to before moving to the United States, several participants (3, 4, 6, 7, 8, 10, 11, and 12) identified their mother as the person responsible for suggesting it was time to go to a health care professional. The majority of these participants made statements similar to that of participant 12; “[I] talk to [my] mom, explain what was going on, and she would decide.” Despite participants identifying multiple people as part of their support systems, most participants only identified their mother as the person in their family that

they sought advice about medical care. This could be due to the majority of participants coming from traditional family structures in which the mother was the primary caretaker.

As elite athletes, the participants develop close relationships with their coaches. Therefore, participants 2, 9, and 13 identified their coach as the first person they turned to when needing guidance on how to deal with an injury. Participant 2 explained, “always coach, because he is the person I’m closest to.” Participant 13 agreed and described the process as “[I] talk about it with my coach and then go see a physio.” Participants all had past experiences with relying on someone else when they needed to seek care. Although the decision-maker was not the same for all participants, it showed they were accustomed to trusting others for advice to seek care. This matters because these past experiences show that participants understood the importance of seeking guidance when they need care. This became evident as all participants stated that they tell their athletic trainers when they get injured.

In the United States at the university level, participants in this study all had access to athletic trainers assigned to their sport. As indicated in previous sections, this was a new resource for some participants while others had access to physiotherapists. While participants were responsible for first seeking care from athletic trainers, athletic trainers served as the decision-maker when coordinating student-athletes’ care. At the university, participants highlighted seeking care from their athletic trainers for several reasons. Participants 8, 9, and 10 discussed the accessibility of athletic trainers. Participant 10 stated “if I have [injuries] I just tell [my athletic trainer] because it is convenient...I see them anyway, so I just tell them before it gets worse.” Similarly, participant 9 suggested reaching out for medical care in the United States was “faster because [athletic trainers] are there and available and convenient” when compared to their home country. Yet, participants 2 and 7 felt they did not know how medical care worked in the

US. Participant 7 said “I don’t know anything about the health system here so I would never go to the health center or hospital and try get service. I wouldn’t know how ...my athletic trainer knows, and I trust in his expertise.” Similarly, participant 2 was unsure of the process to obtain aid and stated, “that’s why now the only person I have to call is my trainers.” These international student-athletes allowed their athletic trainers to be the decision-maker because athletic trainers were viewed as an accessible resource, and most participants were unfamiliar with the health care system.

Reporting injuries and illnesses to their athletic trainers was thought by some to be a requirement as student-athletes. Rather than acting as their own decision makers, participants 1, 4, and 11 felt their decision to seek care was dictated by their role as a student-athlete. Participant 1 previously referred to the scholarship as a “contract” and explained, “I report my injuries not because I think [my athletic trainer’s plan] will work but because when anything major happens, I need it to be on record.” Participant 4 felt a similar obligation, stating “because of the role that I’m in, I go straight to the athletic trainer... making sure that I see who I need to see.” Participants 1, 4, and 11 explained choosing to report their injuries and sicknesses to their athletic trainers because they believed it is part of their athletic scholarship.

Upon moving to the United States, most ISAs are separated from their families for the first time (Bradley, 2000). Student-athletes depended on these support systems for guidance on a lot of topics like school, grades, and medical choices. Consistent with Lloyd and colleagues (1994), the medical decision-maker for most participants in this study prior to moving to America was their mother. Participants 3, 4, 6, 7, 8, 10, 11, and 12 all explained that growing up, their mother was responsible for making the decision to seek care. The reliance on someone else to make this decision allowed for participants’ willingness to trust athletic trainers. Nearly



all participants explained that when they were injured in the U.S., they relied on their athletic trainers to determine the appropriate treatment plan.

The willingness to trust athletic trainers may be attributed to multiple different factors. The first is that international students have little knowledge of the American health care system. Research has shown that international students struggle to receive the health care they need because of confusion surrounding the American health care system (Skromanis et al., 2018; Zanchetta & Poureslami, 2006). This lack of understanding applied to ISAs in this study, as participants 2 and 7 explained they relied on athletic trainers to make their health care decisions because they would not know how to seek care otherwise. Other participants described a willingness to work with their athletic trainers because they felt it was convenient, or that they were obligated to as student-athletes. Regardless of participant motivations, the willingness of participants to trust athletic trainers is an important aspect of care. Previous research suggests that a positive relationship between student-athletes and athletic trainers leads to improved delivery of care (Unruh, 1998). The relationship between ISAs and athletic trainers is particularly important as ISAs manage their injuries, as participants in this study described injury as a difficult experience that led to certain consequences.

### ***Consequences of Injury***

Consequences of injury was coded as the *negative effects of injury on student-athletes beyond physical pain*. Reporting injuries was not always easy as some participants had negative experiences that resulted in losing playing time. Consequently, not playing means not upholding their end of the contract which puts the student-athletes in a tough bind. “I’ve been going through an injury for a few months, and I haven’t been able to train or anything” (participant 7). “I had my shoulder injury- tendinitis in two tendons, and I was out for like a year for that”

(participant 6). “My only sport injury was my wrists, but it went all the way to my back, and I had to get treatment on my back to treat my wrists. So I [had to be] pulled out of a tournament because of that injury” (participant 4). Each of the participants highlighted a time when they were injured and the amount of time they spent not playing their sport. Participants were recruited based on their performance as elite athletes, and therefore they did not want to have an injury that would reduce their ability to do the job they came to America to do. Participant 11 had a negative experience with an injury that was reported to the athletic trainer, explaining that “after 5 games I got injured. I missed basically the whole season because of this muscular injury. And they just misdiagnosed it as a labrum tear. And I had to wait. I had to get an MRI.” Similarly, participant 2 described the process being “long while the [injury] is worsening...I was there waiting [for an MRI] while my teammates are training, and I needed to train.” Waiting for the diagnoses, or the right diagnoses, was hard for these athletes as they both recognized missing playing time and even the season. Negative experiences make the participants “very skeptical” (participant 11) about health care providers’ plans of care. Further, in fear of misdiagnoses and losing playing time, participants avoided reporting injuries they perceived to be minor for as long as they possibly could. Participant 2 explained handling minor injuries without assistance and “if I see it becoming too much... If it continues, that is when I have to inform [my athletic trainer].” The participants’ experiences highlight the concerns that other participants had surrounding injury. Participants acknowledge that injuries cause them to be unable to play. Without being able to play, participants fear that they are unable to meet the expectations that come along with their scholarships. While participants admit that they ultimately would report injuries to their athletic trainers, the fear of failing to meet expectations as a result of injury threatens to delay this process.

Student-athletes are concerned with getting and reporting their injuries because of the consequences that come along with being injured, such as lost playing time, team perceptions of weakness, sleep disturbances, academic difficulty, loneliness, and the loss of identity (Baum-Mehus, 2018; Von Rosen et al., 2018). The participants in this study focused on losing playing time because of an injury. Participants 2, 4, 6, 7, and 11 all associated previous injury with lost playing time that was, for some participants, extended as they waited for a diagnosis. Von Rosen and colleagues (2018) highlight that many athletes derive their self-esteem from competence and performance results, and when this is taken away, it leads to decreased identity. Although none of the participants stated their team had negative perceptions or they felt like they lost their identity, these are feelings and emotions that could have been developed and are common with injury (Von Rosen et al., 2018). This may be especially true for these athletes because, as previously discussed, their primary reason for attending an American university is to continue playing their sport. When an injury prevents participants from playing their sport, their perceived purpose is taken from them. Therefore, participants may wait to report their injuries until they feel they absolutely have to. The consequences of injury are one of several factors that could delay injury reporting in ISAs.

### ***Knowledge of Health care in the United States***

Knowledge of health care in the *United States* was coded as *participants' knowledge of available resources and the process of receiving health care in the United States*. Student-athletes are informed that athletic injuries and doctors' visits are covered under university insurance. However, participants in this study felt they had limited or no knowledge about how the system works. Participant 6 said "[health care] is pretty accessible for me personally...because I am on scholarship...but if I want to stay here and take care of my own

health care, I have no idea how to do that.” Participant 8 referred to second-hand knowledge, stating “I’ve heard that [health care] is pretty expensive and hard to come by if you don’t have the means but I’m insured by the athletic department, so I don’t have to worry about that side of it.” It was common for the participants to not fully understand the cost or process of the American health care system.

Along with not understanding the American health care process and system, there were participants (2, 3, 4, 5, 7, 10, 11, and 12) that did not know what was covered through the athletic department. “At first I thought I could just go to the hospital because I already have insurance, but I think you have to follow some rules, so I don’t know. That’s why now I have some trouble” (participant 2). Along with not understanding the steps, participant 3 explained confusion with the insurance policy as “it was given to me by the athletic department and it’s not been really explained to me. I’ve just not had the time to sit through it and really understand who pays for what, and what’s covered and what’s not.” Such feeling was common as participant 10 described being “confused how the insurance works because I know I’m on the school’s insurance, but I never know to what extent that covers it. ... [But] if it was an emergency, I don’t know that it would be completely covered if it wasn’t sports-related.” The participants’ lack of understanding of the financial aspects of health care and health insurance created a sense of anxiety associated with injury.

Beyond a lack of knowledge of the process, resources, and responsibility, the participants’ perceptions of the financial strain provided an increased stressor that deterred some participants from wanting to receive care. Participant 7 had a fear of suffering a major injury because of the financial consequences. “I know if you have to get surgery, it can cost a lot. And like, I’m not sure how much my insurance is gonna cover. Let’s say I get terribly injured and I

need a surgery. Like, I'm not sure like, how much the insurance is gonna cover." Participant 4 compared the cost of insurance at home to the US stating "at home, I know that I would not be financially put out if I needed to seek expert care...here I feel like if you go for an expert, the money price goes up and up and up." Being honest about the perceptions, the participant stated, "I don't know the numbers, but I know many people go bankrupt over here compared to zero people back home... your health insurance system is scary." Participant 3 had an idea of the price for surgery and explained that "if I didn't have insurance [my surgery] was forty thousand dollars. It's scary thinking that if I'm not covered, I'm out that much money. It's daunting." The participant understood the value and need of health insurance and explained that large costs of care is a stressor as it creates "a bit of a worry knowing it's not set in stone that if you're ill you'll get better." Over half of participants (3, 4, 5, 7, 9, 10, and 11) brought up a fear of health care costs when asked about health care concerns in the United States. Though most participants ultimately stated they would seek health care, the fear of health care costs made injury reporting a stressful experience, and financial insecurity served as an additional consequence of injury.

Confusion surrounding the American health care system and the fear of financial burden has been shown to serve as a barrier to care in immigrants and international students. Studies by Adeboyaga (2020) and Zhang (2016) found that international students had a limited understanding of health insurance coverage in the United States. Multiple studies among international students and immigrants living in the US have shown that even when provided with health insurance plans, participants struggled to understand them (Poyzrali & Grahame, 2007; Zeimer, 2014). ISAs in this study were placed in a similar situation. Participants 2, 3, and 10 knew they were provided health insurance policies by the athletic department but did not understand what coverage was included in these policies. The uncertainty surrounding health

insurance can serve as a source of anxiety for international students because they lack knowledge of available resources, and perceived health care to be expensive. Zhang (2016) found that international students delayed care because they were unsure of how to receive it, and they often preferred self-treatment because they feared the cost of American health care. Participants in this study expressed similar concerns when faced with the possibility of needing outside referrals. Participants 4, 3, and 7, all explained that they feared suffering a major injury in America because they were afraid of the cost of associated care. Furthermore, the majority of participants considered the cost of health care in the U.S. to be a concern. Given that American health care costs are among the highest in the world (Cohen, 2016), these fears are justified.

### ***Willingness to Comply***

Willingness to comply was coded as *situations and factors that lead athletes to follow or not follow plans of care*. Participants described several reasons that they would or would not follow the plans provided by their athletic trainers. As elite athletes, participants depend on positive relationships with their coaches and athletic trainer. Participants (6, 7, 8, 9, and 13) that recalled positive experiences with their athletic trainers used this as a reason to follow medical advice and instruction. When explaining why it was important to follow the guidance of the athletic trainer, participant 8 stated “I trust her judgment...my coaching staff, they have a lot of faith in her... I feel like she knows what she’s doing, and I trust her and her background.” Such trust was consistent with other participants. “I trust my trainer. I trust in his expertise” (participant 7) and “I trust that [athletic trainers] know what they’re doing and what’s good for me” (participant 9). Athletic trainers worked hard to gain student-athletes’ trust, and in turn, this created increased compliance. Some ISAs viewed athletic trainers as a positive resource and were willing to listen to whatever plans of care were provided.

While the positive relationship between international student-athletes and athletic trainers helped establish compliance, it sometimes only extended to injuries or illness that could be managed within the athletic training room. Participants 3, 4, and 5 explained that while they trusted their athletic trainers' expertise, they would only comply to a certain extent because they feared the financial repercussions of needing to see a health care professional outside of the university. Participant 3 explains trust in athletic trainers by saying "I'd do everything I needed to do to get better...I've been injured enough to know that if you don't follow it, you don't get better as quick." They understand the importance of following their athletic trainer's plan of care but would be afraid to do so if it required doctor's visits. "There's no issue with [trusting athletic trainers], it's just, would I want to go see a doctor instantly?" They elaborated on this concern by stating they'd be "worried about if I'd be referred to go see a doctor or whatever...will I be charged?" Participant 5 similarly explained their willingness to comply with their athletic trainer's plan of care until it involved seeing a doctor. "They only [thing] I wouldn't [do] is if she told me to see a doctor because I don't want to get billed...I wouldn't want to be billed for seeing a doctor that I don't know if I needed to." These participants trust their athletic trainers enough that they are willing to receive guidance but admit experiencing hesitation due to the cost of health care.

While participants knew that reporting injuries to their athletic trainers was part of their responsibilities as a student-athlete, some admitted to attempting to manage their own. Participants 1 and 2 both explained that when they felt their athletic trainers' plans were ineffective, they relied on self-treatment methods. Participant 1 was willing to "listen [to their athletic trainer] and when it's not working, I'll do my own thing." With no sports medicine professionals to work with before coming to the United States, this participant explains that "I

used to take care of my own injuries...that's why [now] some things I'll keep quiet and deal with by myself." Participant 2 described balancing self-treatment with an obligation to work with their athletic trainer, especially when the treatments felt ineffective. "Sometimes if I look about some things and they are not really helping me, I do it but not with all my heart...I do it to make [my athletic trainer] happy." However, the participant explained finding "my own way to relieve [pain] in the house. I do exercises that are effective for me." Both of these ISAs are from a country where sport-related health care was not always accessible. As a result, they have a tendency to manage sport-related injuries independently.

An area that extends beyond following the athletic trainers' guidance is using medication. Several research participants felt that the United States' medical system placed a heavy emphasis on medication, which was uncommon in their home countries. Consequently, participants identified not complying with medical recommendations that involved medication prescriptions. Participant 4 described experience with treatments for an undiagnosed illness in the United States as "there was one time, I didn't even know what I had...they just put me straight on antibiotics...I didn't know what I was getting [them] for... they are quick to put you on antibiotics over here, whereas that is not the case back home." In other countries, getting a prescription for medication is a bigger chore, as participant 2 recalled "most of the time I don't take drugs like that unless you test me and find what I'm suffering from. But if you don't really test me, I won't take your drug." It appears to some participants that "we push a lot of medicine on our bodies ... and I'm not someone to take medication for every small pain" (participant 1). The American system uses medication to address minor injuries as well as major injuries. However, these international student-athletes do not believe that medication is the way to fix the



injury. Therefore, the participants in this study acknowledged not following medical advice when it involved a high frequency of medication, as this was rarely practiced in their home countries.

The participants explained that for the most part, they were willing to comply with health care providers, but there were several instances in which they wouldn't. These instances include situations that involve high health care costs, ineffective treatments, and over-prescription of medication, findings that directly mirror previous research in international students. Zysburg (2005) and Poyzrali & Grahame (2007) both found that international students feared the cost of health care in the United States, and like these athletes, this fear would prevent them from receiving health care when they needed it. Like these participants, Adeboyege (2020) found that confusion surrounding insurance policies led to delays in care. Similarly, participants in this study explained that they would listen to their athletic trainers until it required a referral to outside resources. For the most part, ISAs trusted their athletic trainers to manage their care but had very little faith in their ability to receive care beyond the athletic training room.

Participants 1 and 2 explained that they worked with their athletic trainers because they felt that, as student-athletes, they had to. However, both of these participants described instances in which they preferred to manage illnesses and injuries on their own. Both of these participants are from a region with limited access to health care (Akukwe, 2015; Agbiji & Agbiji, 2016), and even more limited access to sports medicine. They have likely spent much of their lives managing sports injuries themselves. For these participants, this meant waiting until injuries were unmanageable on their own to report them and continuing their own regiments even after injuries were reported.

Several participants explained that they were willing to comply with their athletic trainers until it involved medication. These participants explained that in their home countries,

medications were typically only prescribed in certain instances for particular diagnoses, and it seemed that American health care providers suggested medication use at will. Similar findings have been shown among international students and immigrant populations. Roy and colleagues found that immigrants that embraced spiritual beliefs were more likely to use home remedies because they felt that they were more effective than prescription drugs. Similarly, Zhang (2016) found that Chinese international students preferred using home remedies to prescription medication. ISAs in this study felt that medication was pushed too often when most of the time, they felt their bodies could recover on their own. This attitude while specific for medication, was also consistent across other health care attitudes and decisions. While ISAs in this study reported decision-making factors that were not always consistent with literature, it was evident that cultural factors and certain life chances helped create the cognitive framework that ISAs used to make decision-making, and therefore influenced their decision to seek care.

## CHAPTER 5

### CONCLUSION

The number of ISAs continues to grow as American universities offer opportunities to play sport while getting an education. ISAs have to balance pressures that new students, international students, and student-athletes all face. In other words, these intersecting identities create intense stress as the ISAs have to navigate a new culture while balancing athletics and academia. This study set out to understand how cultural factors and past experiences of the ISAs in this study impact the participants' interaction with health care in the United States. The two research questions were: (1) how international student-athletes' cultural context impacted compliance with university health care and (2) how participants' life chances impacted medical resources and lifestyles.

In this study, we found that the cultural factors that influenced how student-athletes interacted with their health care providers included family support and the role of sport. While literature suggests cultural factors may lead to decreased compliance within a new health care system, these participants' discussions surrounding culture seemed to make them willing to interact with and listen to the guidance of their athletic trainers. All of the participants described the impact of having close relationships with family members and the support that these individuals provided. The participants described settings that were common in their countries and the acceptable expectation to ask for help and guidance. The majority of participants described mothers being the main caretakers and were often the person that made recommendations on when it was time to seek medical care when injured or sick. Other participants talked about leaning on uncles, siblings, and even coaches when deciding to play their sport at a higher level or when an injury needed more attention. It appeared that the participants placed a large value on these supportive relationships, which suggests that they

would be accepting and maybe even seeking some type of similar relationship when migrating to the United States and playing their sport. In addition, sport played a major role in the participants' lives as they all played at a high level in their countries before moving to the United States. With the college scholarship, sport expectations, family expectations, and different value placed on sport in the US compared to home countries, the participants' desire or obligation to stay healthy played a major role in the participants' actions to report their injuries. The willingness of student-athletes to comply with athletic trainers depends heavily on athlete-athletic trainer rapport. Therefore, in order to provide the best possible care, it is important for athletic trainers to understand athletes' perspectives. (Unruh, 1998)

The majority of participants came from countries that were resource-rich. However, resources were received and accessed at different levels across the participants. In other words, the participants had different types of medical resources and lifestyles that impacted their life chances. This could be observed in the different health care structures and access to resources that the participants described. The majority of participants in this study had access to high-quality health care that was made affordable through government funding or government-mandated insurance policies. This ease of access to high-quality care meant that participants were used to receiving health care whenever they needed it.

Participants compared their knowledge of American health care to what they experienced back home. While they acknowledge they could receive efficient, high-quality care in America, they also viewed this care to be highly unaffordable. Multiple participants indicated that the cost of American health care would lead to them avoiding seeing doctors when their athletic trainers recommended it. Participants who did not have easily accessible health care at home acknowledged that the quality of health care in America was much higher than what they were

used to, but often felt inclined to self- treat because they were accustomed to managing minor injuries and illness on their own. The lack of familiarity with the American health care system and the fear of the cost of health care served as a barrier to health care among ISAs. As the link between student-athletes in the medical world, it is the responsibility of athletic trainers to provide ISAs with the education and information they need to overcome this barrier.

The ISAs in this study described the additional stress that comes along with the scholarship. For the first time, ISAs experience an increase in responsibility as their academic success and athletic success are intertwined. Sato (2011) highlighted that participants in their study identified the pressure of maintaining grades to remain eligible to compete in collegiate sport. However, to my knowledge, there has not been a study that highlighted ISAs feeling that this contract meant they had to maintain their health, stay injury free, and maintain grades to stay eligible to play. The ISAs in this study indicated a major reason for reporting their injury was because they felt it was part of the requirement for the scholarship. Some participants even felt that reporting injuries and following the injury protocol from medical staff was part of the rules of the scholarship. Therefore, ISAs in this study described that they would report their injuries to their athletic trainers despite knowing that injuries were often associated with negative consequences.

Consequences of injury can have a negative impact on ISAs in multiple ways. The first is that it costs them playing time, which they feel jeopardizes their scholarship. The second is that they know it may require them to receive health care services they are unsure they can afford. ISAs explained that they are afraid to report injuries because they are unaware of what their insurance policies cover and what the financial consequences of injury will be. For some ISAs, this fear leads them to conceal their injuries and rely on self-treatment until injuries become

unmanageable. Other ISAs will report their injuries but will only comply with care that does not require outside referrals. For all student-athletes, a lack of understanding of the American health care system and fear of astronomical health care costs serves as a barrier to receiving the care that they need.

The findings in this study add value to the literature and to athletic trainers for numerous reasons. There has been a growth in research surrounding cultural competence among athletic trainers as well as other health care professions. Athletic trainers have a responsibility to address the individual needs of all student-athletes. This means that in order to provide patient-centered, culturally competent care, athletic trainers must understand the unique experiences, wants, needs, goals, and values of international student-athletes. However, there is currently a gap in the literature addressing if and why ISAs seek medical assistance when participating in their sport. Understanding the needs and perspectives of this unique population is important because athletic trainers and student-athletes exist in a unique realm of health care that allows for strong interpersonal relationships to develop. Athletic trainers should serve as an easily accessible resource that helps ISAs navigate a complex and unfamiliar system, yet most of the participants in this study felt they didn't receive the guidance they felt they needed. The findings of this study reveal that ISAs fear becoming injured because it may limit their ability to maintain their athletic scholarships. When they do become injured, they feel pressure to report because they feel it is part of their role as student-athletes, however, they fear the costs associated with an unfamiliar health care system. These findings indicate that athletic trainers need to put a greater effort into understanding the unique fears and experiences of ISAs in order to guide them through the health care-seeking process. A positive, trusting relationship between athletes and athletic trainers leads to increased compliance and better athlete outcomes (Unruh, 1998). In order for athletic trainers

to provide the highest quality care, they must establish these types of relationships with ISAs. This begins by having an understanding of the unique experiences and challenges ISAs must face.

### **Implications for Future Research**

While there is a plethora of new research examining ISA transition to the United States, there is very little research on the health or the health resources they are provided. Future research should build upon these findings and examine how ISA interactions with athletic trainers differ from those of domestic athletes. Additionally, future research should focus on developing effective strategies to educate ISAs about the American health care system and how it pertains to their position within university athletics. Providing resources tailored to the needs of ISAs would be beneficial in helping athletic trainers cater to this unique population.

### **Limitations**

There are several limitations to the study which will be addressed, the first being sample size. At the time data collection was completed, only thirteen members of the population had volunteered to participate. However, these thirteen participants included members from all world regions that were represented within the sample university's student-athlete population. Additionally, the regional breakdown of participants is nearly proportionate to that of the entire population at the sample institution. Though the sample was small, it serves as an accurate representation of the population at that university as a whole. Therefore, the researcher felt that it was in the best interest of study completion to move forward with data analysis using the thirteen participants. However, because this is in comparison to the overall ISA population competing in NCAA Division I athletics, its generalizability is limited until results can be confirmed through an expanded version of this study.

Further limitations include a limited amount of research regarding health behavior and health care utilization among both international and domestic student-athletes. Therefore, it was not possible to directly compare the experiences of these participants to domestic student-athletes or previously studied ISA populations. This was mitigated by incorporating literature from studies within the realm of international student health, migration literature as well as domestic-student athlete reporting behavior (Castro, 2008; Kandula et al, 2004; Msengi et al, 2011; Skromanis et al, 2018; Weerasinghe & Mitchell, 2006; Williams et al, 2010). While this literature helped draw some comparisons, it lacked the depth necessary to draw conclusive, all-encompassing comparisons between populations.

Additionally, participants in this study were aware that the researcher was a member of the athletic training staff, and therefore may have been hesitant to disclose information that would reflect negatively on themselves or their athletic trainers. This was mitigated by reassuring the participants that all interview data was confidential and would be reported anonymously and that anything said in interviews would in no way affect their participation in athletics. Although student-athletes were reminded of their confidentiality on numerous occasions, a hesitancy to disclose this information may not have been completely mitigated.



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## APPENDIX A: Interview Guide

1. What year in school are you?
2. How old are you?
3. What was the first language you learned to speak?
  - a. If not English, how many years of English-speaking experience do you have?
4. What country are you from?
5. **Tell me about your culture- religion, family structure, rituals, role of sport)**
  - a. Talk about your family
    - i. Roles of mother, father, children, extended family?
    - ii. Are your parents married?
    - iii. What role did you play in the family?
    - iv. Are you the oldest sibling
    - v. Were you a caregiver
    - vi. Who took care of family members if someone got injured or sick?
    - vii. Is this common in your home country?
  - b. Talk to me about religion
    - i. Do you practice one, and if so, which one?
    - ii. How does religion play a role in day to day life?
    - iii. Are there any rituals or traditions specific to your religion?
  - c. Talk to me about playing sports back home
    - i. Formal or informal
    - ii. For fun or competition
6. **In your own words, tell me what it means to be healthy**
  - a. How did you develop your understanding of health?
  - b. What does your culture do to maintain health?
7. **How would you define pain?**
  - a. How did you develop your understanding for pain?
  - b. Is this common in your culture?
8. **How does your culture view illness?** (Spector 16, 32; culture/habitus)
  - a. How did you develop your understanding of illness?
  - b. Is this common in your culture?
  - c. What do you do to prevent illness?
9. **How do you decide when to see a doctor/ health care professional?** (Spector 15; culture/habitus)
  - a. For illness?
  - b. For injury?
  - c. Has this changed since moving to America?
10. **Tell me about health care in your country** (Cockerham 132; life chances)
  - a. government run vs. privatized?
  - b. accessibility
  - c. affordability

11. **What type of health care do you think you have access to in America?** (life chances/habitus)
12. **What would you do if you got injured playing sport back home?**
  - a. Athletic trainer/physio?
13. **What would you do if you were to be injured playing sport in America?**
14. **What would you do if you were to become sick while in America?**
  - a. Athletic trainer?
  - b. Student health/clinic?
  - c. Home remedies?
15. **In the event of illness or injury, how likely are you to follow your athletic trainer's plan of care?**
  - a. What factors contribute to these decisions?
16. **Do you have any concerns about health care in America?**
  - a. Access
  - b. Types of available treatment
  - c. Knowledge from doctors
  - d. Equality of treatment
  - e. Heard negative or positive interactions from others

## APPENDIX B: INFORMED CONSENT

**INFORMED CONSENT TO ACT AS A SUBJECT IN AN EXPERIMENTAL STUDY**

My name is Alison Adams, and I am a 2<sup>nd</sup> year graduate student in the Masters of Kinesiology program. I am seeking your participation in my study regarding attitudes towards health and health care in international student-athletes.

Title of Project: Attitude Towards Health and Health care in International Student Athletes

Investigator's Name: Alison Adams, ATC      Phone: 330 338 9986

Participants Name: \_\_\_\_\_ Date: \_\_\_\_\_

Data Collection Location: Hanner Fieldhouse Room 1207

1. The purpose of this study is to determine how cultural factors and past experiences impact attitudes in health and health care in international student athletes.
2. Participation in this study will require your completion of one-on-one semi structured interview. The researcher will ask you questions about your culture, your experience with illness and injury, and your experiences with health care both at home and in the United States.
3. Risk involved in the study is limited to discussion of past medical history, which could lead to discussion of uncomfortable topics. If at any time you feel uncomfortable, you may withdraw from the study and your data will not be used.
4. There are no direct benefits to you as a participant. There may be benefits regarding the provision of health care to international student athletes in the future. These benefits include further understanding of how international athletes react to care based upon their culture and past experiences, and an enhanced ability of athletic trainers to cater to international student athlete needs.
5. The duration of the study will be one- hour long semi-structured interview.
6. You will not be identified by name in the data set or in any reports using information obtained from the study, and your confidentiality as a participant in this study will remain secure. Subsequent use of all records and data will be subject to standard data use policies that protect anonymity of the individual. All data will be stored in a secure location for a minimum of three years and then will be properly destroyed.
7. You have the right to ask questions and have your questions answered. If you have any questions about the study, please contact the researcher named above.

8. You will not receive any compensation for this study. There will not be incentives for your participation.
9. You do not have to participate in this study if you do not want to. Participation in this study is completely voluntary. You may withdraw from the study at any time, and there will be no penalty for doing so.
10. You must be 18 years of age or older to consent to participate in this research study. If you consent to participate in this study, please sign and date on the following page.
11. You will be given a copy of this consent form to keep for your records. This project has been reviewed and approved by the GSU Institutional Review Board under tracking number H20158
12. For questions concerning your rights as a research participant, contact Georgia Southern University Office of Research Services and Sponsored Programs at 912-478-5465.

Principal Investigator:

Alison Adams, ATC  
Email: [aa18502@georgia.southern.edu](mailto:aa18502@georgia.southern.edu)  
Phone: 330 338 9986

Faculty Advisor:

Christina Gipson, Ph.D.  
Email: [cgipson@georgiasouthern.edu](mailto:cgipson@georgiasouthern.edu)  
Phone: 912 478 1101

\_\_\_\_\_  
Participant Signature

\_\_\_\_\_  
Date

I, The undersigned, verify that the above informed consent procedure has been followed.

\_\_\_\_\_  
Investigator Signature

\_\_\_\_\_  
Date

## APPENDIX C: PARTICIPANT RECRUITMENT EMAIL

Subject Line: Invitation to Participate in Research

Good morning,

You are receiving this email based upon your status as an athletic trainer at Georgia Southern University. I am reaching out to you do seek your assistance in participant recruitment for my study about international student athletes and health care. I would greatly appreciate if you would forward the following email to all international student-athletes on your respective rosters:

My name is Alison Adams and I am reaching out to you to seek your participation in my study about international student-athletes and health care. You are receiving this email based upon your status as an international student-athlete at Georgia Southern university.

The purpose of this study is to determine how cultural factors and past experiences impact international student athletes' attitudes towards health and health care. Participation requires you to attend a 30 minute individual interview. All identifying information will be removed from your data, and data will remain anonymous throughout the study.

If you would like to participate in this study, please respond to this email with your name and preferred contact information. Should you have any questions regarding this study prior to consenting to participate, feel free to contact me at [aa18502@georgiasouthern.edu](mailto:aa18502@georgiasouthern.edu) or 330 338 9986.

Thank you for your time,

Alison Adams

Master's Candidate- Kinesiology

Department of Health and Kinesiology



## APPENDIX D: IRB APPROVAL FORM

Georgia Southern University Office of Research Services & Sponsored Programs	
<b>Institutional Review Board (IRB)</b>	
Phone: 912-478-5465	Veazey Hall 3000
Fax: 912-478-0719	P.O. Box 8005
	Statesboro, GA 30460
	IRB@GeorgiaSouthern.edu

**To:** Adams, Alison; Gipson, Christina; Hunt, Tamerah; Flynn, Matthew

**CC:** Newell, Emily

**From:** Office of Research Services and Sponsored Programs

**Approval Date:** 12/9/2019

**Expiration Date:** 11/30/2020

**Subject:** Approval with Conditions from the Georgia Southern University Institutional Review Board -  
**Expedited Review**

After a review of your proposed research project numbered: **H20158**, titled "**Attitudes Towards Health and Healthcare in International Student-Athletes**," it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable. You are authorized to enroll up to a maximum of 50 subjects.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research **with the understanding that you will abide by the following conditions:**

- Please be aware that the format by which you plan to collect your data appears to fall under the requirements of the [Georgia Southern University Survey Policy](#). Your IRB approval does not address your access to the GS email system for survey research purposes. Once you have received IRB approval for your research methodology, the IRB approval will be conditioned upon you taking the additional step of submitting your survey delivery methodology for President's council approval through the [Provost's office](#) (faculty, student) or the [Office of Institutional Research](#) (Staff, NonGSU affiliates).

**Description: the purpose of this study is to determine how social factors, past experiences, and cultural adjustment impact attitudes towards health and healthcare in international student-athletes.**

If at the end of this approval period there have been no changes to the research protocol; you may request an extension of the approval period. In the interim, please provide the IRB with any information concerning any significant adverse event, **whether or not it is believed to be related to the study**, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator **prior** to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,



Eleanor Haynes  
Compliance Officer

## APPENDIX E: LETTER OF CONSENT FROM GSU ATHLETICS

**ATHLETIC TRAINING**

Post Office Box 8082-25  
Statesboro, GA 30460  
TEL: 912-478-5302  
FAX: 912-478-7690  
<http://gseagles.com>

To Whom it May Concern:

We support Alison Adams's study on attitudes towards health and healthcare in international student-athletes. She has the sports medicine department's approval to recruit international student athletes to participate in her study, which involves completion of a survey and an individual interview. She may hang recruitment flyers in Georgia Southern athletic training facilities.

Brandy P. Clouse, M.S., ATC, LAT  
Georgia Southern University  
Sr. Associate Athletic Director / SWA  
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