The Lived Clinical Experiences of United States Expatriate Athletic Trainers

by

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Context: The international practice setting is gaining popularity for athletic trainers (ATs). Little has been investigated about the clinical experiences and challenges this setting presents. The purpose of this study was to create a baseline of understanding surrounding AT's lived clinical experiences within the international practice setting.

Methods: We used a consensual qualitative design and recruited credentialed ATs who are practicing the athletic training skillset outside the US. The Board of Certification supplied email addresses for recruitment (Sample: 23 total; 11 females, 12 males; 34 ± 7 years old. Representation was from fifteen different countries. Participants completed an electronic informed consent and demographic survey (Qualtrics® Inc., Provo, UT). Based on previous literature and in consultation with an international sports medicine expert, both interview and survey tools were developed, validated, and piloted. Semi-structured interviews were conducted and transcribed by the lead investigator using teleconferencing software (Zoom, San Jose, CA). Three researchers coded transcripts using a consensual codebook to confirm domains, codes, and data saturation. Member checking, peer reviewing, and multiple researchers were used to triangulate data and enhance trustworthiness.

Results: Three domains emerged during analysis: (1) Professional and Cultural Adaptations, (2) Healthcare Landscape, and (3) Personal Pathways and Motivators. Participants voiced struggles

with *self-efficacy*, as well as detailed *incongruities of their clinical roles* and others' understanding of their skill set as ATs. Clinicians detailed the versatility of ATs' skillset *filling clinical gaps* within their country's healthcare landscape. *Institutional* and *intraprofessional relationships* were expanded on and emphasized personal connections. Participants voiced challenges surrounding *resources* and adapting to their country's legal systems. *Interprofessional practice* and collaboration, as well as *cultural competence*, was discussed as imperative to practice. A wide range of work settings within countries were regularly found.

Conclusions: International ATs expressed a variety of ways that the AT skillset fits a unique international need. Both interprofessional relationships and intraprofessional practice were crucial; relationships were enhanced through communication skills, empathy, and cultural competence. While native clinicians had a consistent lack of knowledge of the AT skill, clinical advocacy and a strong desire to grow the international practice setting was salient to practitioners.

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Preface

To my village who have been with me since day one, thank you for your never-ending support, encouragement, and belief in me even when I did not have it in myself. From my first sports medicine international travel when I fell in love with international collaboration, through a global pandemic, this project has shown me time and time again that the world is small, made to be explored, and full of people who want to make it better.

To each participant who gave their time and stories to me, thank you. You each inspired me and gave me drive through every tough moment of this project. I hope I have represented your stories to the fullest of extents.

To my parents, Steve and Judy, my siblings, Andrew and Madeline, and my partner, Matt, thank you for listening, reading, making me laugh, and reminding me to not sweat the small stuff.

To the University of Pittsburgh educational staff, thank you for letting me take on a project that was exploratory but allowed me to be continually passionate about my work.

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And finally, it has been my honor to study such an incredible population of athletic trainers. To all pioneering athletic trainers, you continue to grow the profession that stole my heart years ago.

1.0 INTRODUCTION

As we have so clearly seen in 2020 from the impact of the SARS-CoV-2 pandemic, our world is vastly interconnected. The need for productive and intentional international collaboration, especially within healthcare, is crucial to the future of our interdependent world. This was recently confirmed by one zoonotic transmission bringing the entire world to a halt in a matter of months.[1] Catastrophes such as the SARS-CoV-2 pandemic, natural disasters, and globally rising pain and disability rates from a technologically advancing world, call for new and creative solutions to health disparities.[1-3] These disparities impact all people of the world financially, physically, and mentally without discrimination of country.[3,4] Global crises will continue to decrease quality of life at all socioeconomic levels until clinicians begin to look for solutions that impact everyone without regard to country. International healthcare collaboration is essential to obtain a unified global medical community. Many countries face common healthcare challenges such as disaster relief, cancers, and pain disabilities.[5-7] To address these challenges, healthcare systems must adapt to provide the best possible patient care worldwide.

One of the ways that healthcare systems have adapted to the needs of patient care is the expanded role of allied healthcare professionals. These professionals are crucial to completing the continuum of patient care. The utilization of allied health professionals within healthcare models allows for increased adaptability by putting the wide range of skill-sets these professionals possess to use.[8] Expansion of physician reach through allied health professions provides improved connectivity to patients in times of greater need for those with disabilities requiring consistent care to pandemics.[9-11] While medical communities all have a common goal, each country's healthcare

system varies in terms of allied healthcare professions represented.[11] Within the United States (US), one of the most versatile allied health professions is athletic training. With a skill set extending the primary care of physicians to a range of settings, athletic trainers (ATs) have become an asset to healthcare systems.

ATs embody the foundations of rehabilitative focused allied healthcare by providing hands-on, curative care to patients. These professionals are unique from similar professions in the location of their practice settings. Specifically differing by providing care in the location of the patients' activities rather than solely in clinics or hospitals. While established on the treatment of injuries and emergency care domains, ATs have further specialized skills depending on the setting in which they are found. Ergonomic assessments in industrial settings, orthotic creation and injury prevention in performing arts settings, and emergency management in tactical athlete or emergency room settings make ATs well equipped to address a wide range of international healthcare concerns.[12]

As ATs are an example of a US-based allied health profession, likewise, healthcare systems outside the US contain their own range of practitioners uniquely tailored to their cultural needs. However, as countries continue to move towards more integrated healthcare approaches, the similarities of skills each profession possesses creates new opportunities to learn from one another. While interdisciplinary learning for medical providers is focused on cultural competence, true clinical immersion of a professional breeds questions of sustainability and efficacy in this new environment.[13] A more experiential form of collaboration, by full clinical immersion called expatriation, is growing as an impactful practice setting for new patient populations within allied healthcare professions.[14-17] Understanding the impact and rationale behind clinicians practicing in

another country could provide invaluable insight as new global challenges are encountered in a changing world.

1.1 GLOBAL HEALTHCARE ORGANIZATION

1.1.1 The Need for Global Health Collaboration

While most are familiar with the Hippocratic Oath taken by physicians, people are less familiar with the Social Contract which defines the responsibility and commitment all healthcare professionals have to their communities.[18,19] Rather than a strict oath, the Social Contract is dynamic and defines the relationship and demands of society, both domestic and international, with their healthcare professionals. As the medical landscape evolves with time, the Social Contract also adapts to clarify the moral obligations and requirements of professionalism from all providers.[19] With the world facing health problems on a global scale, the integration of a common healthcare model across borders becomes the new expectation.

The most recognized form of organized global health collaboration is in the World Health Organization (WHO).[20] The WHO is comprised of 194 member states and staff of physicians, scientists, epidemiologists, and other professions dedicated to seek 'health', defined as not solely the absence of disease or disability, but complete mental, physical, and social well-being, for every human regardless of any personal factor.[20] It is not, however, reasonable to expect one organization to manage a world's worth of problems with consistent efficacy and justice. As Koplan et.al

discussed at length, the definition of global health is much larger than what one, or even a hundred organizations, could accomplish.[3]

'Global Health' is defined as the interdisciplinary sphere of prevention, treatment, and care. The definition spans beyond the medical concerns addressed by the un-regulated soft law of the WHO whose primary focus is to address large public health disparities and communicable disease control.[3,20] The definition of global health includes clinicians working hands-on with patients to address nutritional deficiencies, obesity, industrial health, injury prevention, and the safety of migrant populations.[3] The laws and expectations the WHO creates are often unclear and have low enforceability, demanding a 'synthesis of population-based prevention with individual-level clinical care' to address health needs.[2,3] Allied healthcare providers are essential to the front line care of this model.[11] These providers are equipped and ready to address transnational problems on domestic levels from their specialization in some of the most pressing global health concerns including disaster relief and emergency care, musculoskeletal pain and disability, care of military and first responder personnel, and optimization of the working human.[2,3,11]

1.1.2 The Globalization of Allied Healthcare Professions

The scope of allied healthcare is vast and expands into the gaps of patient care that physicians are unable to reach.[9,11] While titles range dramatically from country to country, occupations like pharmacists, laboratory technologists, dieticians, and many kinds of therapists complete the continuum of the health care team.[11] As each profession becomes established within the medical community of their origin country, they then follow an evolution to becoming internationally recognized. As seen in the physician[21,22], nurse[23], pharmacy[24], dietetics[25], and

therapy professions[26], there is a pattern of growth once a global need for their skillset is realized and recognized by the WHO and United Nations (UN).[27] Country- or region-specific organizations combine to create international professional federations, such as the American Medical Association and the British Medical Association as members of the World Medical Association (WMA).[28] These international federations develop a standard-of-practice for all common professions which lead to international standards of professional education, and thus, care. This creates greater accessibility for students and professionals to learn and share ideas across country borders.[27]

Each allied health profession is at a different stage in its international establishment. Professions such as physicians, nurses, and physical therapists are present within all healthcare systems and have strong international congresses, collaboration forums, and consistent education standards across the globe.[11,21,23] Within nursing, the International Council of Nurses (ICN) brings together more than 130 nurses associations from across the world.[23] They have released educational practice standards with guidelines on a number of topics not limited to, ethics, advanced practice nursing, professional scopes, and law regulations.[23,29] Other, more niche professions like nurse practitioners, physician assistants, ATs, pharmacists, and respiratory therapists are all slowly evolving onto the global healthcare scene.[11,24,30] The International Pharmaceutical Federation (FIP) is the organization of national pharmacy associations across the globe.[24] The FIP Education is the section of FIP that is working to coordinate roadmaps for the future of pharmaceutical education.[24,31] This establishment of the international educational standards will advance the global recognition of pharmacists, and will allow these professionals to move across borders more easily.[27]

At the pinnacle of international recognition is the ability of each professional federation (ICN, FIP, WMA, etc.) to consult with the WHO and the UN.[21,23,24] Following international recognition, the foundation of education standards for a specific profession allows for an increased ease of practitioner movement for work across countries.[24-26,32] Expatriation, or working abroad, progresses the interconnectivity of global medicine.[27]

1.2 EXPATRIATES IN ALLIED HEALTHCARE

1.2.1 The History of Expatriation

Expatriation is not a new concept. Different from migrants and immigrants, expatriates are individuals who reside in a country other than their native homeland for short-term to medium-length-term work.[33] Most commonly seen as professionals, skilled workers, or artists, expatriates are often sent by corporations, governments, universities, or international organizations, however, recently trends show many are pursuing work in another country independently.[34-36] Historically described as diplomats, missionaries, and researchers, recent distributions of expatriates show expansion to include business associates, military personnel, and independent professionals.[34-40] Increasing steadily with the interconnectedness of the world, the estimated number of expatriates around the globe is approximately 56.8 million individuals, about twice the population of Texas.[41-43]

Historically, medical professionals have not been seen included within investigations of expatriates. Even with many international medical organizations, the exploration of clinicians'

reasonings and clinical functioning when relocating out of the country is not well established. Without foundational understanding of healthcare expatriation, opportunities to expand these collaborative practice settings is difficult. Innovation does not occur without collaboration, and a lack of baseline knowledge about this international practice setting creates challenges towards achieving cooperative global healthcare.[44]

1.2.2 Established Healthcare Expatriation

Medical expatriation, specifically in the physician and nurse settings, has grown to meet society's demand for a globally connected world.[19] Contrarily, the nature of clinicians' reasoning for expatriation has not been well explored. It has been hypothesized, that a desire to achieve universal healthcare and the growth of multinational sponsored hospitals along with the medical tourism market, drive a large percentage of the known physician and nurse expatriation.[6,45-48] Medical tourism, or the completion of medical procedures outside of one's home country, is a multibillion-dollar industry that is rapidly changing medical industries within its home markets.[46,49] Traditionally, however, the consistent pattern of expatriation between countries has been called the 'brain drain'. This pattern shows that physicians leave to seek more affluent training or employment opportunities in countries higher up the 'hierarchy of wealth' compared to their home country.[50-52] Beginning with the least developed countries, physicians will look for opportunities in emerging economies. Physicians from the emerging economies will search for education and work in one of the 30 countries within the Organization for Economic Co-Operation and Development (OECD) which are considered the pinnacle of medical excellence.[45]

Standing atop of the physician expatriation pyramid, the US is often considered the pinnacle of expatriate locations due to its positive rate of physician influx.[44,53] However, top-tier OECD-countries are creating international hospitals and educational affiliates housed in emerging economies which is changing typical expiration patterns. Not only has this shift in movement patterns increased medical tourism rates in non-OCED countries, but it has also supported the growth of international healthcare access across the globe.[46] The daily experiences of expatriate physicians and their desires for moving to work in new countries is still not well understood even with increased ability for practitioner movement.[11,44,54,55]

1.2.3 Allied Healthcare Expatriation

The international movement trends and motivations of practitioners within allied health professions have not been well investigated. While physicians tend to work toward 'pinnacle' countries, for allied health professions there is not a pinnacle country of work because the existence of their professions are characteristics of developed countries' medical systems. This lack of hierarchy makes expatriated movement non-linear within these professions. Due to this, investigations of expatriation within allied health professions have been focused on establishing basic allied health skills to underdeveloped countries rather than assessing movement to other developed countries.[14,16,17]

The most common allied health professions within underdeveloped countries are those of rehabilitation and disability management.[14,56-58] Occupational and physical therapy specialties have stated that rehabilitative professionals have an ethical duty to serve the world's populations of poverty and disability.[56] The Bone and Joint Decade of 2000-2010 was established and endorsed

by the WHO and the UN to address growing concerns for the impact of musculoskeletal diseases and disabilities.[59] This international decade increased awareness around the impact of pain and disability, leading subsequently to the advancement of therapeutic and rehabilitative professions.[60] The advances of these professions further heightened the need for international musculoskeletal collaboration, including the expatriation of allied health professionals.[59]

While further research is warranted to investigate expatriation of allied health professions, international health care education within these professions has been thoroughly investigated. Exchange and study abroad trips, internships, and service-learning or mission work integrated into professional program curricula or pursued separately, give students the eye-opening experiences of medicine outside of their cultural norm.[61-66] Studies found allied healthcare students participated in educational trips to a variety of countries, from developed to undeveloped, and varied greatly in the amount of time spent abroad.[61,63-65,67] In addition to learning a variety of clinical skills, working alongside international mentors allowed students to gain appreciation and passion for international collaboration.[63,65]

While movement trends have not been well-studied, there has been an increase in the study of allied health professionals' desires for expatriating since 2000.[14,16,17,62,67] Addressing the global presence of healthcare disparages and disabilities is steadily becoming a part of the Social Contract for allied health professionals and they are rising to meet it through collaboration and expatriation.[19] However, there is a stunning lack of information about the true medical impact these practitioners are able to make. Expatriation within allied healthcare will continue to grow as these providers become more aware of their skill-set's international need and recognition. Future investigations will need to examine the impact of the allied health expatriate practice setting on interprofessional relations with the medical systems and patients with which they work.

1.3 THE NEED FOR GLOBAL ATHLETIC MEDICINE

1.3.1 The International Versatility of the Athletic Trainers' Skillset

Opposite from traditional trends in medicine where professions start with a broad scope-of-practice and narrow to specializations over time, the profession of athletic training began from one need in the healthcare community and has since tremendously broadened its scope-of-practice.[68] Beginning as clinicians equipped for sideline athletics care, ATs have grown into versatile primary care providers, under the direction of physicians, within a wide range of settings from rehabilitation clinics, performing and industrial arts, and orthopedic operating rooms.[69] After being formally recognized as an allied health profession in 1990 by the American Medical Association, athletic training expanded education to include additional competencies in musculoskeletal assessment, treatment, rehabilitation, emergency care, general illness assessment and prevention, and wellness optimization.[68,70]

As ATs have increased their skill sets to become multifaceted specialists that fill in many gaps of other allied health fields, they have additionally created opportunities to address healthcare concerns on a global scale.[15] Many believe the Olympics are the pinnacle of international athletic medicine collaboration. However, this setting requires only a sample of ATs' proficiencies and has little opportunity for clinical collaboration. Similar to the pattern followed by other allied healthcare professions, ATs are starting to find global and tangible needs for their skills and expertise.[71]

In young populations, prevention and treatment of orthopedic and catastrophic injuries is a daily expectation of the AT.[70] In older populations, maintaining health while staying physically

active is crucial for management and prevention of aging diseases like osteopenia and forms of arthritis. Becoming included in the top five causes of disability in the world, the rising rates of orthopedic diseases have been highlighted by initiatives like the 2000's Bone and Joint Decade.[60] Musculoskeletal pain is the most common symptom afflicting humanity, but before this decade had very little change in the status quo of its treatment.[59,60] Using multidisciplinary team approaches to treatment allows for a broader range of concerns to be addressed and enhances the patient's 'voice'.[59] ATs are trained to provide therapeutic interventions for the treatment of musculoskeletal pain in athletes, general active populations, industrial workers, and military personnel.[69] Therefore, the integration of an AT into healthcare systems in international settings can have a major impact on the reduction of musculoskeletal injuries and disabilities.[59]

More recently seen during the SARS-CoV-2 pandemic, ATs' competencies within primary care are gaining notoriety with public health efforts, telemedicine, and clinical care in hospitals and other settings.[72-77] In addition, ATs are being recognized for their expertise in preparation for and management of emergency care situations in athletics, emergency rooms, and local natural disaster relief efforts.[78-80] ATs have extensive experience working directly with Emergency Medical Technicians, Emergency Room physicians, and others trained in urgent care.[79,80] With this ability to collaborate with on-site emergency medical personnel, paired with extensive training in emergency care, ATs can impact natural disaster relief efforts and provide necessary emergency room treatment as a member of disaster response teams.[78,80,81]

The military is another rapidly growing practice setting for ATs that has international capabilities and needs.[82] The implementation of injury prevention strategies as well as training of overall wellness and performance optimization provides a unique set of skills that can positively impact the health care of tactical athletes.[83,84] The military setting is growing domestically but has

the potential to spread abroad.[82,85] A common thread throughout the world is a love of sport.[4] Having medical providers who are specially trained to handle the unique challenges of athletic injuries increases the safety and overall health of young and aging populations. As sport, industrial, performing arts, military and other musculoskeletal demanding settings continue to grow internationally, so will the need for the skill sets of ATs.

1.3.2 International Growth of Athletic Medicine Professionals

Providing health care in settings beyond athletics allowed US ATs to gain notoriety as valuable primary care providers in a variety of settings.[68,86] The term athlete has expanded within medical care to include all those active in their work or lives including performing arts, industrial, and tactical athletes.[12,69] It has further grown to encompass all general populations with musculoskeletal burdens commonly seen in clinic settings with no specification of athleticism.[87] This growth allowed ATs to redefine themselves in the US healthcare system as primary care providers useful far beyond the sport field.[69] Once the versatile identity of athletic training was solidified, the profession naturally began seeking globalization to match the recognition of other allied health professions on the international stage.[15]

While the idea of global athletic training has recently gained more traction, the idea of globalizing the athletic medicine skill-set is not novel.[15,27] Under the leadership of National Athletic Trainer Association (NATA) President Kent Falb in 1997, notably early for any allied health globalization conversations, the US athletic training profession began to examine what it would need to become international.[88] The following year, the NATA Annual Meeting combined with the first World Congress on Exploring Globalization of Health Care for the Physically Active

in Baltimore, Maryland.[68] This conference found what is still true today, that the athletic training skill-set fits an international need for musculoskeletal and emergency prevention, management, and treatment. While a variety of medical professionals, such as nurses, physiotherapists, athletic therapists, and massage therapists treat athletic injuries in other countries, ATs are the predominant healthcare providers for athletic populations in the US.[68,71]

In 2000, the World Federation of Athletic Training and Therapy (WFATT) was created under the leadership of the NATA for ATs and the Canadian Athletic Therapists Association (CATA) for athletic therapists to unite similar professions. Soon after in 2005, a Mutual Recognition Arrangement (MRA) between the Board of Certification (from the US) and the CATA was created. This arrangement matched educational standards which allow clinicians to sit for the athletic training or therapists certification exams in the other respective country for further ease of clinician expatriation.[71,89] Further investigation into the educational understanding of these similar professionals sparked the creation of a Global Practice Analysis (GPA). Data was collected from 2006-2012 and recorded responses from 14 member organizations including:[27]

- Athletic Rehabilitation Therapy Ireland
- Association of Chartered Physiotherapists in Sports Medicine
- Biokinetics Association of South Africa
- British Association of Sport Rehabilitators and Trainers
- Canadian Athletic Therapists Association
- Japan Sport Association
- Japan Athletic Trainers' Association
- National Athletic Trainers' Association
- Taiwan (Republic of China) Athletic Trainers' Society

- Federazione Italiana Fisiotherapisti
- Korean Association of Certified Exercise Professionals
- Ontario Athletic Therapist Association
- Society of Sports Therapists
- Spanish Association of Sport Nurses

Not long after the start of the GPA study, a World Congress was held in 2009 to identify educational standards for athletic medical professionals among member countries. Many strong similarities were found including preventing injuries through taping and bracing, using therapeutic modalities to enhance recovery, facilitating medical referrals and consultations, among others later published through the GPA.[90] This led to the expansion of the original MRA with the NATA and CATA in 2013 to add Athletic Rehabilitation Therapy Ireland (ARTI). Professionals from the US, Canada, and Ireland could now sit for one other's certification exams in order to expatriate as an AT or therapist any of these three countries.[27,89,91] Just as all allied healthcare professions follow the same progression to gain recognition, the WFATT continues to strive for the recognition of athletic training and therapy professions as essential members of multidisciplinary healthcare teams across the world.[90] Throughout its 20 years of existence, the WFATT has grown to include 41 member associations across 11 countries and four continents.[32] Together, each of the WFATT member organizations continue to expanded their skill-sets to adapt to the changing needs of the Social Contract, including medical assistance with SARS-CoV-19 efforts, showing the growth and adaptability of these athletic medicine professionals.[92]

1.3.3 The Globalization of United States Athletic Training

For the purpose of this study, US credentialed ATs (US-ATs) are defined as individuals who are Board of Certification (BOC) certified, state licensed, or credentialed to practice athletic training within the 50 United States. After the NATA began the global search for other professions similar to ATs of the US, the NATA created the International Committee (NATA-IC) to address concerns of members living or working outside of the continental US. They additionally began to spearhead review and recommendation of policies affecting international members as stated in their NATA purpose statement.[93]

Since their creation, this committee has created resources and support not only to the globalization movement of the profession, but also to those professionals who choose to expatriate as US-ATs abroad.[94] The MRA allows for increased professional expatriation within involved countries, but little exists beyond that for medical license standardization. The NATA-IC has frequently collaborated on international concerns with the athletic training/therapist organizations in Canada, Ireland, and Japan, sponsored an international-themed NATA Annual Convention (2019), and produced resources for those professionals looking to work abroad.[85] Most recently, the NATA-IC created the International Ambassador Program. There are currently ambassadors in the following countries: Australia, Belgium, China, East Africa, Germany, Japan, Spain, and the United Kingdom. Ambassadors can be contacted by other ATs who are interested in going to or working in the eight represented countries. These professionals can provide information and resources regarding knowledge about working and living in the country of interest.[85] The NATA-IC has continued to bring the globalization of athletic training to the forefront of national conversations about the profession.[94]

New to the athletic training profession is the examination of the portability, and thus practicality, of the ATC credential abroad. In a study from Izumi and Tsuruike in 2018, negligible differences were found in the practice patterns between expatriate US-ATs and Japanese trained ATs.[95] Even further studied is the integration of international learning opportunities within athletic training education programs.[96] The majority of opportunities were short-term, but ranged in location from Japan, to London, and Nicaragua.[97-99] Some advantages to these experiences include the tactile learning of cultural competencies and an exposure to the international sports medicine communities, which hopes to invoke passion for international collaboration in the coming generations of professionals.[96]

Additionally, the Commission on Accreditation of Athletic Training Education (CAATE) has approved the expansion of professional programs internationally. In 2019, la Universidad de Camilo Jose Cela in Madrid, Spain, became the first internationally CAATE-accredited program. This accreditation provides the opportunity to graduates of the Masters of Athletic Training and Therapy Program to sit for the US' BOC Inc. credentialing exam.[100] A second international program, in Barcelona, Spain is currently seeking CAATE accreditation.[101] These two programs demonstrate the versatility and globalization of the athletic training profession, as well as the desire for this clinical skill-set beyond the US.

1.4 STUDY PURPOSE

The 2000's Bone and Joint Decade brought a new level of understanding to the number one cause of pain in the world, musculoskeletal diseases.[60] One of the essential objectives to this

focused decade was the further promotion of professionals trained to treat musculoskeletal injuries, which brought to light the importance of the WFATT community.[59] Most importantly, this decade showed that musculoskeletal diseases and pain are an international common-ground and establishing availability of qualified professionals to treat these is a global concern.[59,60] The athletic training and therapy professions have begun the journey towards global medical recognition through the creation of the GPA and the MRA.[27,89] However, each country holds different views towards athletics, therefore changing the needed skills of their athletic medicine professional, making exchange of clinicians across countries for work difficult.

US-ATs exemplify the charges from the Bone and Joint Decade for prevention and creative treatment solutions.[15,59,71] However, they add skill-sets of emergency care, injury prevention, ergonomics, and primary care.[27,95] This additional and unique expertise in risk care and management aptly suit the US-AT for international healthcare needs. Natural disasters, pandemics, and increases in musculoskeletal diseases require skills to which the US-AT is well prepared. As catastrophe rates rise, the need for a professional that combines these skillsets becomes increasingly evident.

While studies have been performed to investigate similarities in educational standards and practice patterns of US-ATs abroad, no investigations have yet looked at the lived experiences and adaptations of these individuals working abroad.[27,89] Understanding the work, whether traditional to their credential or completely pioneered, these expatriate professionals do in a variety of different countries is crucial to establish a baseline of knowledge for the future of international athletic training. The purpose of this investigation is to explore the lived experiences of US-ATs working as clinicians abroad.

1.4.1 Specific Aim 1

To investigate the clinical skill sets of US-ATs working abroad within allied healthcare.

1.4.2 Specific Aim 2

To investigate common personal traits observed as most advantageous for US-ATs practicing internationally.

1.4.3 Specific Aim 3

To investigate the motivations behind US-ATs and their desires to work internationally.

1.4.4 Specific Aim 4

To investigate the availability of professional support to US-ATs working internationally.

1.4.5 Specific Aim 5

To investigate what collaboration opportunities exist for US-ATs with other health professionals while working internationally.

1.5 THEORETICAL FRAMEWORK

To best understand the work of ATs abroad, we must examine beyond categories or formulas as used in qualitative methods analysis and let the experiences of these pioneers speak for themselves. The investigation into work adaptations abroad demands a qualitative approach to the data. The foundational components of research require methodology that is replicable and scientifically rigorous. Rather than confining such intimate data to numerical code as in quantitative methods, qualitative research allows investigation of their realities to be vivid, dense, and full of detail leading to a more thorough baseline of ATs working internationally.[102-105] Within qualitative research, there are many theories and methodologies. This research was performed using Consensual Qualitative Research Methodology (CQR) as described by Hill in 1997.[106] Since its original creation for the psychological community, CQR has expanded across science professions, filling a gap for replicable and scientifically rigorous qualitative research that can explain the 'why' behind phenomena.[106]

CQR's design focusing on peoples' social experiences make it uniquely fitted to examine ethnic and cultural diversity.[107-109] This makes it ideal to investigate international experiences transcending borders.[110-112] It has been published in several languages and in many countries including Korea, South Africa, Spain, and East Asia, among others.[107,108,110-112] CQR has investigated experiences from a variety of populations. Relationships of trust and power[107,113,114], belief in theories or treatments[112,115], and effects of cultural or system norms[109-111] are just a few topics studies across healthcare[108,112,113,115,116], business[117], and education[110,118-120]. In the past ten years, CQR has gained popularity specifically amongst athletic training clinicians and researchers.[113,114,119,120] These studies have examined many aspects of the athletic training realm

including the preceptorship, theory education, perceptions of clinical treatments, and lived experiences of new to old clinicians.[113,114,119,120]

1.5.1 Consensual Qualitative Research Methodological Foundations

The CQR methodology is a combination of several theories of qualitative research. Methodologically, Hill's CQR is based on:

- Educational Qualitative Research from Bogdan and Biklen[121]
- Qualitative and Psychological Theorizing from Henwood and Pidgeon[122]
- Quality Control of Qualitative Research from Stiles[123]

Primarily founded on Bogdan's Educational Qualitative Research, CQR matches three main components of this methodology. All data is collected from its natural setting with researchers as the primary instruments of data analysis.[106,121] Additionally, the research purpose is to describe phenomena rather than seeking to alter it.[121] Finally, the process of 'why' certain phenomena occurs, and impact individuals must be sought rather than solely explaining an occurrence. This discovery of the participant's personal perspective leads hypotheses to be created in a bottom up fashion, as conclusions are formed from the data collected.[121]

CQR also follows with key features of Henwood and Pidgeon's Qualitative and Psychological Theorizing. [122] They emphasize description rather than explanation of events, stress the importance of understanding the reality of the participant alone, and focus on the meaning of the experience in the context that it was found in. Similar to Bogdan and Biklen, Henwood and Pidgeon state that qualitative methods require working hypotheses that come from the data rather than as ideas set to be disproven.[121,122]

Stiles' Quality Control of Qualitative Research reiterates the same themes needed for qualitative research as the previous two methodologies.[121-123] It does add that findings from qualitative research should be understood as polydimensional, just as experiences are. Stiles also highlights that empathy towards participants should be a defining part of the methodology. Finally, he writes that the research team should understand, believe, and hope that these studies can provide empowerment to participants.[123]

1.5.2 Consensual Qualitative Research Theoretical Foundations

Theoretically, CQR is most influenced by Grounded Qualitative Theory.[106] Grounded theory of qualitative research stresses the development of a framework with all related concepts towards the phenomenon being studied.[124] CQR follows this theory by using a stepwise process that cyclically encapsulates and analyzes data until core ideas are found consistently throughout the data.[106] Unlike grounded theory, however, CQR methodology defines a consistent sample, recruitment, and analysis protocol which allows it to be more scientifically reliable. Additionally, grounded theory uses only one researcher to code data whereas CQR is foundational using a team-approach for consensus of conclusions.[106,124]

Also influential to CQR is Comprehensive Process Analysis (CPA) Theory.[125,126] Both theories use systematic processing of data through a team approach, but differ as CPA relies on multiple external sources of information used to understand the phenomenon. External sources vary but can include research articles, newspaper accounts, documentaries, and other sources that provide additional perspectives and potentially further facts. Finally, CPA encourages conclusion creation by drawing large inferences from all of the sources compiled which is polar from CQR

which does not draw conclusions far from participant quotes, but rather tries to condense their ideas to succinct, repetitive themes.[106,125,126]

The phenomenological theory of qualitative research is foundationally critical to the understanding the theory of CQR.[106] Phenomenology and CQR both acknowledge the process of qualitative research is not an easy undertaking. Gaining true insight to a participant experience and emotions followed by the task of condensing this to words in conclusions is complicated and difficult to achieve. The difference lies with the consensus process between the research team on conclusions found which CQR requires and phenomenology does not.[106,127,128] Finally, valuing which creates respect towards participants is also a key feature to all theories and definitive of qualitative research.[106,129-131]

2.0 METHODOLOGY

2.1 EXPERIMENTAL DESIGN

Consensual Qualitative Research Methodology (CQR) was used due to its replicability and scientifically accepted rigor.

This methodology is defined by five key components as described by Hill et al. in 2005:[131]

1. Open-ended questions in semi structured data collection techniques, typically interviews, which allow for consistent data collection across individuals[106,131]
2. Several judges throughout the data analysis process to foster multiple perspectives[106,131]
3. Consensus to arrive at judgements about the meaning of the data[106,131]
4. At least one auditor to check the work of the primary team of judges and minimize effects of groupthink[106,131]
5. Domains, categories, and cross-analysis in the data analysis[106,131]

The third component (the consensual process) differentiates this qualitative methodology from others by utilizing a team approach to data analysis increasing diversity of mindset and decreasing bias. The team together finds small ambiguities and additional patterns within the data that one individual alone would not. Additionally, CQR's team approach creates check and balances between professionals working systematically towards the common goal of data authenticity.[131] Due to CQR being a purely observational study design, there is no randomization, control group, independent or dependent variables.

2.2 SUBJECTS

2.2.1 Participant Recruitment

Subjects were recruited from an array of countries representative of the population of US credentialed ATs (US-ATs) working outside of the US's borders. US-ATs include those who are BOC certified, state licensed, or credentialed to practice athletic training within the 50 United States. All international US-ATs were able to participate in the study. Three main avenues were prepared for recruitment opportunities to any international AT who wished to participate. Due to data saturation being met, only the first step was used.

1. The Board of Certification (BOC) research emailing list was utilized to email individuals who self-identified themselves with practice locations that are international locations. Participants were emailed a first time with several reminder emails following throughout a 4-week recruitment process. Data saturated was met, and exceeded, using this recruitment method alone.
2. The NATA distributions survey provided names of US-ATs who self-identify as working in international settings with contact information to be sent the recruitment email.
3. The NATA International Committee's (IC) Ambassador Program has a representative for eight countries. Ambassadors would have been sent the recruitment email and asked to disseminate it to practicing US-ATs in the country they represent.

4. Social media platforms and word of colleagues would have been used to reach saturation for the study with the same recruitment email.

All potential participants were sent a standardized recruitment email, see Appendix A through the BOC from the lead investigator with an explanation of the study's purpose, all aspects and risks of participation, and details on how to join. The link to the demographic and screening survey to be able to join the study was included in the recruitment email.

2.2.2 Written Informed Consent and Demographics Survey

Participants were directed through the recruitment email to an online survey created through Qualtrics Survey Platform™ (Provo, UT). The details of the survey can be found in Appendix B. Two screening questions started the survey to ensure participants fell within the inclusion criteria of the study followed by a digital consent agreement. Participants provided their name and e-mail before answering demographic questions about themselves and their job position. Once the survey was completed, the lead investigator screened the answers and sent the potential participant a standardized email (Appendix C) with a link to a Doodlepoll (New York, NY) to select their 30-minute interview time slot. Once the Doodlepoll was completed, participants were sent a calendar invite through their email to their selected interview time with their unique and password protected Zoom (San Jose, CA) call link.

2.2.3 Study Saturation

Saturation for participant inclusion is determined individually for each qualitative research project depending on the size of the population and sample availability for participation.[106,131] This occurs when additional cases are added but do not alter analysis of domains and categories or themes are seen throughout majority of investigations.[131] A stability check was performed towards the end of data analysis and determined that the sample size collected was amply large and no further interviews needed to be conducted.[106,131] Due to sufficient data saturation being attained after 23 participants, no additional participants needed to be sought and screened for further data collection.

In 1997 and 2005 Hill recommended between 8-15 individuals are needed for data saturation. To achieve full representation of the global population of expatriate US-ATs, researchers made an effort to attain participants from a variety of countries.[106,131] The eight countries with NATA IC Ambassadors (Australia, Belgium, China, East Africa, Germany, Japan, Spain, and the United Kingdom), Ireland through the NATA's Mutual Recognition Agreement, and Canada created a sample of 10 countries from many regions of the world that researchers attempted to target.[132] Including participants from all regions of the world eliminated cultural bias of the data but still allowed investigators to learn how international cultures impacted clinical practice.

2.2.4 Inclusion Criteria

Participants were required to be US-ATs in good standing with the Board of Certification (BOC). They had to be trained in the US but currently working outside of the US borders. Their

job description did not have to specifically be ‘athletic trainer’, but their current work had to clearly be in allied healthcare or include elements of the Athletic Training Practice Analysis 7th Edition.[70]

2.2.5 Exclusion Criteria

Inability to speak English fluently, those retired or not currently working abroad, and those working solely as a fitness instructor or coach without any elements of the Athletic Training Practice Analysis 7th Edition in their job duties were excluded from the study.[70]

2.2.6 Study Participants

Upon completion of the survey, 47 responses were begun. Of those, 30 individuals completed the survey, properly met the inclusion criteria, and agreed to the consent form. The study sample meet saturation after 23 interviews whose demographic information can be seen in Table 1.

These 23 participants represented 15 different countries, with 52.17% of these countries being in Asia and 30.43% of them in Europe. The average age was 34±7 years old with an even split in gender (12 males, 11 females). The average year of certification as an athletic trainer was 9.9±6.1 years while the number of years practicing internationally was 6.0±4.7 years with the maximum of international years being 22 years. Participants showed a strong representation of higher education from master’s degrees, additional sports medicine degrees (physiotherapy, physical therapy, strength and conditioning, etc.), to PhDs. All ATs were given culturally neutral pseudonyms to maintain participant anonymity, also viewable in Table 1.

Table 1. Participant Demographics										
Pseudonym	**Age**	**Gender**	**Country of Practice**	**Years Certified AT**	**Years in International Setting**	**Highest Education**	**Job #1 Setting**	**Job #1 Setting Type**	**Job #2 Setting**	**Job #2 Setting Type**
Chaman	25	M	China	2	0	Master's Degree	Athletics	Collegiate	Clinic	Rehabilitation
Evander	25	M	Ireland	1	3	Master's Degree	Athletics	Secondary School	Education	Teaching
Caris	55	F	Japan	28	22	PhD	Athletics	Secondary School	Education	Teaching
Arya	34	F	Cayman Islands	13	10	Master's Degree / DPT	Clinic	Rehabilitation		
Samir	33	F	Japan	8	6	Master's Degree	Athletics	Collegiate		
Felix	36	F	Japan	9	9	--	Athletics	Professional or Adult Level		
Haris	33	M	Belgium	10	6	Master's Degree	Athletics	Secondary School	Education	Teaching
Paz	33	F	Brazil	7	5	Master's Degree / DPT	Clinic	Rehabilitation	Other Setting	Hospital
Rowan	39	M	Puerto Rico	10	7	--	Athletics	Professional or Adult Level	Athletics / Education	Collegiate / Teaching
Leo	42	M	Republic of Korea	13	10	PhD	Clinic	Rehabilitation	Education	Teaching
Devon	37	M	Ireland	5	5	Physiotherapy Degree	Athletics	Professional or Adult Level	Clinic	Rehabilitation
Oscar	26	M	Thailand	5	4	Master's Degree	Athletics	Secondary School		
Noor	27	M	Spain	5	3	Master's Degree / Physiotherapy Degree	Athletics	Professional or Adult Level	Education	Teaching
Laila	30	F	Germany	9	3	PhD	Athletics	Secondary School		
Idris	33	F	Canada	10	2	Master's Degree	Clinic	Rehabilitation		
Aspen	28	M	China	6	4	Master's Degree	Athletics	Secondary School		
Riley	42	F	United Kingdom	19	8	--	Athletics	Secondary School		
Asan	27	M	Japan	1	1	Master's Degree	Athletics	Professional or Adult Level		

Julia	39	F	China	14	2	--	Athletics	Secondary School		
Hugo	--	M	China	20	13	Master's Degree	Clinic	Rehabilitation		
Luka	32	F	Hong Kong China	10	7	Master's Degree	Athletics	Secondary School		
Avery	36	F	Belgium	11	7	Master's Degree	Athletics	Secondary School		
Bryce	26	M	Taiwan	4	1	--	Athletics	Secondary School		

Table 1. Participant Demographics

2.3 INSTRUMENTATION

2.3.1 Instrument 1: Research Team

2.3.1.1 Team Construction

The data analysis team consisted of a primary investigator, a methodology expert, an internal auditor, and one additional team member strong in qualitative research design for data analysis. The research team was led, and interviews conducted by the lead investigator, Emily Mulkey (EKM). This member was additionally responsible for all organizational maintenance during data analysis. The methodology expert ensured proper procedures of the CQR methodology and limitation of personal and subject biases. Dr. Elizabeth Neil (ERN) guided data analysis procedures, provided bias checks, and oversaw proper interview training of the lead investigator prior to conducting true interviews with subjects. Dr. Mary Murray (MEM) served as the internal auditor to provide big-picture guidance to ensure the development of the project aligned with the study purpose, checked for large scale project bias, and provided feedback to the data analysis team for project development clarity. Dr. Trisha Cousins (TAC) completed the diversity of education and experience of the research team with a background in health and wellness, but not directly athletic training. She additionally brought a wealth of experience using qualitative research methodologies to help provide clarity and direction during the consensus process.

The construction of the research team was purposefully balanced to create the utmost respect among a diverse team as according to the CQR foundations.[106,131] The varying viewpoints

and previous experience of all team members allow for diffusion of biases and deeper understandings to reach resulting consensus as seen in Table 2.

2.3.1.2 Team Preparation

Team members all had a thorough understanding of the CQR process before beginning data analysis processes and were recommended to read Hill 1997, and Hill 2005, Hill 2003, and Welch 2014 for background understanding and examples of CQR in the literature.[106,120,131,133] The lead investigator took the doctoral level course, Community Development and Focus Group, at the University of Pittsburgh to learn qualitative interviewing and data analysis techniques in preparation for the data collection process. Additionally, the lead investigator conducted two test interviews which were reviewed by all other data analysis team members for feedback prior to beginning true data collection to ensure the maximum quality of unbiased data was able to be collected from each participant.

2.3.2 Instrument 2: Call and Transcription Technology

Zoom Video Conference Systems (San Jose, CA) was used for the recording and transcription of interview calls. Recordings were taken as Cloud Recordings to allow for automatic transcription of audio recording. Audio transcription was emailed immediately to the lead investigator following recording completion as a .vtt file. The Corporate Zoom Account used for the investigation was provided through the University of Pittsburgh.

Table 2. *Researcher Qualifications*

Researcher	EKM	MEM	ERN	TAC	MHG	MTL	KFA
Role	Lead Investigator, data analysis team member	Senior investigator, internal auditor	Data analysis team member	Data analysis team member	Thesis committee team member, content expert	Thesis committee team member	Thesis committee team member
Research Experience	Novice qualitative researcher	Novice qualitative researcher	Experienced qualitative researcher	Experienced qualitative researcher	Novice qualitative researcher	Novice qualitative researcher, Experienced quantitative researcher	Novice qualitative researcher, Experienced quantitative researcher
Affiliation with Data Analysis Team	Second-year master's student	Master of Science in Sports Medicine Program Director	External collaborator for qualitative knowledge; Athletic training educator	Collaborator for qualitative knowledge; Faculty of Nutrition and Dietetics Department	Collaborator for content expertise; Program Director for Athletic Training	Graduate Faculty in Department of Sports Medicine and Nutrition	Master of Science in Sports Medicine Co-Program Director

Table 2. Roles and Experience of Research Team

2.3.3 Instrument 3: Survey, Storage, and Analysis Technology

Qualtrics Survey Platform™ (Provo, UT) was used to create and store the Demographics Survey and its results. OneDrive (Redmond, WA) storage platform was used to store and share interview recordings, transcriptions, and data analysis documents with the research team. Data was initially excluded from the internal auditor until the data analysis team was satisfied with analysis and ready for auditing. Microsoft Office (Redmond, WA) Systems of Word and Excel were used for transcription analysis and cleaning. Access to all accounts came from the University of Pittsburgh corporate accounts.

2.4 TESTING PROCEDURES

2.4.1 Procedure 1: Interview Procedures

The lead investigator (EKM) conducted all semi-structured interviews following the interview protocol (Table 3) and took paper notes as needed to record specific inflections, word corrections, etc.[106,131]

Each interview began with a brief welcome, introduction, and a reminder of the study purpose and interview recording. Once the recording was started, a written consent was read to the participant and their verbal consent was received before moving forward. The approximately 30-minute interview protocol was conducted over Zoom and

Table 3. *Interview Protocol*

1. Tell me about how you developed your initial interest in working as an athletic trainer abroad?
2. Describe your job title(s) and how you found or created your position(s).
3. What, if any, are some options for you to be promoted or advance roles and responsibilities in your current job(s)?
4. Tell me about your daily activities at work.
    a. What, if any role or responsibilities do you have in your place of work that are unique to you as an athletic trainer?
5. What, if any, additional training or certifications have you needed to attain while abroad to be able to do your work most effectively in your country?
6. Tell me about what some of the most important or useful skills have you used while being an athletic trainer in the international setting?
    a. Personal life skills?
    b. Clinical skills?
7. What are some challenges you have experiences while working abroad?
8. What is the relationship between you and your non-athletic trainer co-workers and what is that environment like?
9. What are some examples of how you collaborate with other health care professionals in your work?
10. How do you feel about connectivity and support opportunities do you have with other athletic training professionals?
11. Have you ever had students or other athletic trainer's express interest in following in your footsteps working abroad and what do you tell them?
12. Is there anything else you would like to share about your experiences and thoughts regarding working as an athletic trainer abroad?

Table 3. Interview Protocol

was modified as needed, including probes and question order, to gain the fullest data collection possible throughout the call.

The interview protocol was created by the lead investigator (EKM) due to the lack of preexisting protocols that address the specific aims of this research. The study's aims along with previously available literature were used as guides to create the 12 question, semi-structured interview protocol. After review from the data analysis team (EKM, MEM, ERN, TAC) but before true participant interviews, two pilot interviews were conducted with ATs who had worked as expatriates previously but were currently living and practicing back in the United States. The pilot interviews provided question order and wording clarity in addition to providing researchers an idea of the data that would be collected by participants.

2.4.2 Procedure 2: Recording Procedures

Computer recording using Zoom's recording system was started at the beginning of the spoken consent and left untouched, but periodically monitored, during the entirety of interviews. Participants were asked if they had any final thoughts before the recording was stopped to ensure full continuity of recordings.

2.4.3 Procedure 4: Post-Interview Completions

Following interviews, the lead investigator recorded their final impressions and key points on the same paper as notes. As soon as recordings and transcriptions were available, audio continuity and quality were checked before saving them to the data analysis team Dropbox.[106,131]

2.5 DATA REDUCTION

2.5.1 Cleaning and Clarification

All audio transcription files were filtered by the lead investigator to correct false audio transcriptions using the saved audio recording and to remove proper names, places, and any other identifying information. A second review cleaned for grammatical errors and added any notes of inflection or sarcasm written by the lead investigator into transcript margins. This document was saved and used for Member Checks.[106,131]

2.5.2 Member Checks

Member Checks were conducted to increase data validity.[106] The cleaned transcript was sent via email back to participants to allow them to review their transcript for correctness and comment clarification. Participants were not allowed to change their answers but could provide further detail to vague or misunderstood topics. Once returned, edits were added to the transcript document which was saved and uploaded to the data analysis team Dropbox.[106,131] If not returned in 15 days, transcript consent was assumed and the transcript was uploaded as-is to the data analysis team Dropbox.

2.6 TRANSCRIPTION ANALYSIS

The goal of CQR analysis is to continually distill the lengthy words of participants into repeatable patterns of information over three steps to accurately illustrate the common themes about participants' experiences.[106,131] This in-depth process includes four progressive steps: 1. Determining domains, 2. Identifying categories within each larger domain, 3. Cross-analyzation across multiple participants, and 4. Enumerating frequencies for each core idea and the larger category.

2.6.1 Domains and Core Ideas

Domains, or topic areas, cluster the largest patterns found among the data in each transcript. These are overarching themes seen repeatedly by members of the data analysis team that show how the largest grouping of data relates to a societal view external from the transcripts themselves.[106,131] Categories go more in-depth and abstract quotes from participants into codes that are aligned with the true meaning behind their statements. By further breaking down the overarching domains, these codes, or themes, state the essence of participants' words in a streamlined fashion furthering the connection between society and the words participants' speak.[106,131]

2.6.2 Coding Process of Data

Data analysis team members (EKM, ERN, TAC) completed four phases of coding with meetings and checks in between to ensure consensus was found across all members. The first phase, phase one, had each data analysis team member (EKM, ERN, TAC) individually read the same five transcripts. Each team member compiled a 'start list' of large themes they saw across these five transcripts and met together to compile these into a first draft of the codebook. Data analysis team members then used this codebook of initial domains and codes to perform phase two of the coding process. Each member coded the same six transcripts, some new and some from the previous phase, using the codebook before meeting to edit the codebook to its final state, or Consensus Version.[106,131]

Phase three of coding was split into phase 3a and 3b. The first of these took every transcript from the study split them amongst the data analysis team members (EKM, ERN, TAC), and coded them in their entirety using the finalized codebook from phase two. Team members coded transcripts to edit out repetitions, nonrelevant additions, and data not contributing to further understanding of the data point within the larger domain. Each transcript was split as observed throughout each quote into the representative domain and core idea. At a set points throughout this process, team members communicated with one another on any clarifications or questions throughout this phase concerning the codebook or particularly difficult transcripts. Following the completion of coding of each transcript, they assigned to a different team member for phase 3a. In this phase, data analysis team members (EKM, ERN, TAC) reviewed the coding of the previous team member and noted any inconsistencies or changes they thought needed to be made. Following this final review, team analysis members met several times to discuss each transcript, correct

mistakes, and have consensus discussion surrounding quotes that required more in-depth analysis. and come to consensus on all codes and domains noted within it. With all codes and domains agreed upon throughout transcripts, all data was organized and ready for cross-analysis.

2.6.3 Cross Analysis

Cross-Analysis examines across all data rather than individual interviews. All codes from each transcript were compiled to one document that was organized by domains and categories. With all quotes of a particular code in one space, this abstract process was able to look across the investigations full span of data to find patterns, inconsistencies, trends, and meaning behind individual quotes. Also, from this document frequency labels are created. Frequency of occurrence is expressed in words rather than percentages or statistics, but are standardized for CQR research as[131]:

1. General – all and all but one cases examined[131]
2. Typical – at least half of the cases examined[131]
3. Variant – fewer than half of cases examined but greater than three cases examined[131]
4. Rare – two to three cases examined[131]

Frequencies are used as a measure of external validity for qualitative research.[131,134,135] As explained by Max Weber's note on objectivity, scientific understanding is collective and looks to gain improved understanding over a topic qualitatively.[135] By qualifying our data and showing the frequency of the data to show repetitive patterns surrounding the domains and codes found, the more data can be assumed to match the impressions of those outside of the study sample as well.[134] Higher repetition of themes seen across individual data establishes an increased validity to the

code examined as it was discussed more consistently throughout interviews. With this in mind, researchers hoped to find general or typical frequency patterns across the majority of domains and codes to show continuity across participants and higher external validity.

The full data analysis team (EKM, MEM, ERN, TAC), including internal auditor was involved throughout the cross-analysis process which was revised several times to ensure data be as refined and sophisticated as possible.[106,131]

2.6.4 Auditing

The internal auditor (EKM) was involved at the end of each section, from interview protocol through cross-analysis, to ensure conclusions made were in line with the raw data and befitting to the study's purpose. Feedback was focused editorially on the primary stages and becomes broader as the study progresses in line with the team's approach to the data. During Cross-Analysis, the internal auditor examined wording and explanations of each previous section to help ensure clarity and alignment with the project's purpose to a societal view. After receiving feedback, the team went through the auditor's comments and either accommodated or argued to leave unchanged until the auditor and team reached consensus on all points. Only with full research analysis team consensus (EKM, MEM, ERN, TAC), including the internal auditor was the team able to move to the next step in the CQR process.[106,131]

3.0 RESULTS

The CQR emergent design revealed three themes relating to the clinical experiences of expatriate ATs with the framework of the results including frequencies is displayed in Table 4.

From the broad discussion of all aspects of their clinical lives abroad, ATs principally discussed the themes of *professional and regional adaptations,* their unique *healthcare landscape,* and their *personal pathway* to their current appointments. All domains and codes revealed frequencies of typical or general. As explained in Chapter 2, the validity of qualitative research is based on the ability to see themes and codes repeated throughout participant discussions. With our study's large number of subjects, the high frequencies found point to the strong validity of our data to find repetitive patterns throughout a wide range of topic discussed in the investigation to the clinical experiences of these expatriate professionals.

3.1 PROFESSIONAL AND REGIONAL ADAPTATIONS

Data analyzed from the *professional and regional adaptations* domain were reduced into four key categories, with one of these including two subcategories: Self-Efficacy, Role Incongruity, Cultural Competence, Relationships – both Institutional and Intraprofessional.

Table 4. *Domains and Category Details*

Domain	Category	Count	Frequency
Professional and Regional Adaptations	Self-Efficacy	16/23	Typical
	Role Incongruity	23/23	General
	Cultural Competence	19/23	Typical
	Relationships – Institutional	18/23	Typical
	Relationships – Intraprofessional	19/23	Typical
Healthcare Landscape	Interprofessional Practice	22/23	General
	Scope of Practice	23/23	General
	Filling the Clinical Gap	19/23	Typical
	Clinical Advocacy	20/23	Typical
	Multiple-Appointments	18/23	Typical
	Resources	15/23	Typical
Professional Pathways	Skills and Professional Development	23/23	General
	Motivators – Internal	20/23	Typical
	Motivators – External	15/23	Typical

Table 4. Domain and Category Details

3.1.1 Self-Efficacy

Participants frequently expressed feelings surrounding their professional *self-efficacy*. Many expressed the desire to prove themselves and gain respect as health care professionals. This respect as professionals was often tied closely to others' knowledge, or lack thereof, about the athletic training profession. Clinicians also commented on personal fulfilment gained from their position and gratefulness for their positions even through difficulties. The quotes of this code are displayed in Table 5.

3.1.2 Role Incongruity

Although clinicians spoke of their positions with pride, professional incongruity, or *role incongruity*, was commonly noted. Participants described a myriad of concerns about not being identifiable as a profession. This presented itself in varying ways, with some clinicians benefiting from the lack of knowledge about an AT's 'traditional role' and others finding this to be a barrier to advancement. The quotes of this code are displayed in Table 6.

Self-Efficacy	**Rowan** – *I work [talked] with an orthopedic doctor, you know about athletic training, and he was amazed that with my evaluation skills, for example. Sometimes I detect injuries faster than him and, in that way, I gain his respect. I think, the way that you behave with them and trying to work in a professional way, so they can realize that you are a professional, you're a healthcare professional.*
	Julia – *So I think that is one of those things that I like to share because I don't want people to think that this is easy, but I want them to know that it's so worth it and it's so rewarding.*
	Paz – *I think being able to adapt to different situations is the most important skill I've got. Going to school in another country and being a foreigner in the language was like a barrier in the beginning because people didn't understand what I was saying and I felt like some of the people, even some of the athletes, were like: "does this girl really know what she's talking about?" You know? So, I think that I had to overcome my fear to interact with other people, to study and show them that I knew what I was doing and gain their trust.*
	Riley – *I don't take lightly this position exists. I feel very privileged to have it. I think I have one of the greatest jobs in the world.*
	Noor – *So I would say that as far as getting our name out there, I don't know if coaches could recognize those specific skill sets that an athletic trainer has, but certainly they are appreciative of the skills that I can bring to the table as far as acute care and that they might not typically get from a regular physiotherapist.*

Table 5. Professional and Regaional Adapation - Self-Efficacy Quotes

Role Incongruity	**Idris** – *Probably the biggest challenge is just helping people understand what an athletic therapist is, what their qualifications are, and what they do.*
	Noor – *You need to understand that athletic training might not be recognized, your perspectives, your treatment approaches, your philosophies on how to approach cases might not be recognized initially, or agreed with initially, or even you might not have the legal ability to do those kinds of things.*
	Haris – *The last one is just challenging, constantly educating, on what an athletic trainer is, and the profession, and also the things that we are pretty well established, I guess not well established, but constantly educating on things, like concussion... We're really ahead on head injury management so that's challenging sometimes to dispel the way, what athletic directors and coaches may already have in their head about what a concussion is and what to do about it. So constantly deconstructing what people think, and then rebuilding it. For the athletic training profession and the sports safety side.*
	Arya – *So I am kind of operating in a little bit of a bubble out here by myself because like I said, it's definitely not a registerable profession.*
	Evander – *Well, the big problem is people just don't have a clue. So, the main question you'll get when you explain you're an AT [athletic trainer] is, 'Well, you're not a physio though...'*

Table 6. Professional and Regional Adaptations - Role Incongruity Quotes

3.1.3 Cultural Competence

One of the most emphasized professional adaptations detailed by clinicians was *cultural competence*. Participants outlined two aspects of *cultural competence,* one referring to competence in the sense of patient care and the other referring to the culture to which they had to adapt. Difficulties for patient care included adapting medical practice to healthcare infrastructures with different approaches to medicine. Participants elaborated on their country's different expectations for health care norms. Personal culture challenges included language barriers, sexism, and racism. While not all of these difficulties were experienced directly by clinicians, witnessing it, or understanding how it changed interactions with patients or staff members was critical to staying respected within their community. As described by participants, *cultural competence* was one of the most influential factors affecting clinical skills and life abroad. International ATs have not only had to modify their existing skill sets to a new norm, but also gain skills and mindsets to be able to provide healthcare that is traditionally expected of their culture. The quotes of this code are displayed in Table 7.

3.1.4 Relationships

Relationships were crucial to all participants and defined much of their experiences living and working abroad. Relationships were split between *institutional relationships* and *intraprofessional relationships* to explain how each influenced participants' realities.

3.1.4.1 Institutional Relationships

Institutional relationships outlined the interactions participants had with other individuals from their places of work. These relationships with coaches, patients, administrators, and other individuals related to work hinged on the importance of communication. Participants found that individuals were often accepting of ATs and their skill sets once a relationship was established. Others however found that some people, including coaches and parents, could be more closed minded and more set in their cultural healthcare norms. The quotes of this code are seen in Table 8.

3.1.4.2 Intraprofessional Relationships

Intraprofessional relationships were connections discussed by participants with other athletic training professionals. These connections, not clinically based, were important to create community for many participants, but not all had good active connections with other ATs. While some described close-knit communities with other athletic training professionals in their regions, others spoke of loneliness and a detachment to their profession. The quotes from this code are found in Table 9.

Cultural Competence	**Noor** – *And so you have to be adaptive and willing to learn because healthcare here in Spain and healthcare in the US is different, but the idea, the objective is the same, we want our patients to get better but there might be different perspectives and things along the way.*
	Aspen – *I think the biggest advice that I would give, is keep an open mind about athletic training overseas, because, you know, what we learned and the expectations in the US, you know, should be withheld overseas, but when you're working in a different country with different values and different systems you have to be aware and acknowledge those beliefs and be able to, I don't know if compromise is the right word, but, make sure that you're able to do your job efficiently, but just be mindful of where you are and the situation that you're in.*
	Luka – *I have, for example, in the international world, the people are so different and being socially, you know, understanding, and culturally understanding, and open minded, is huge. And I think that if you're able to communicate well, you can get really far.*
	Avery – *I think the biggest thing is to just, if I were to talk to an athletic trainer who's interested in it or just reiterating to those who know, just have an understanding that you will be walking into, not only an environment that is un-, like athletic training is just not well known, if known at all, in that setting, but also keeping in mind that cultural competency is essential. And having an understanding of the differences between the American that you're used to working in and whatever country you are now working in or looking to work in. Because if you can't respect the differences, you will not be accepted as a professional or just as a person that anybody wants to talk to. And so, I think that that is something that is the most important thing, well, one of the most important things to look at. I think that all of the International athletic trainers that I know have done a pretty good job of doing that. It doesn't mean that we haven't all made mistakes in understanding, but we grow from it and we learn from it and we appreciate the uniqueness of the setting.*
	Haris – *Compared to the traditional athletic trainer located in the US, we just have unique responsibilities, is kind of just navigating some of the cultural and systemic differences between the way we do things in the US and the way we do things here. So back in China, working with doctors that English was their second*

	language, or their third language, and they may do things differently. And they may have different philosophies. So, working with doctors, and coordinating that and liaising with that, and explaining things to patients when they may not understand whatever they hear from the doctor. You know, then the same, I anticipate the same thing for here in Belgium, just coordinating and navigating some of the cultural and systemic differences that we may do things, that we may manage injuries.

Table 7. Professional and Regional Adaptations - Cultural Competence Quotes

Relationships - Institutional	**Haris** – *I just try to keep my professional standards up. But still have a good relationship, personal relationship with everyone, teacher, administrator, coach, whatever. So, I try to be very amicable and just try to represent myself as a professional. Put my foot down when I need to, explain things in a way that they'll understand, and just trying to the best I can. To be a good person first, before the best trainer in the world.*
	Paz – *Mostly, I've never had any problem or any issue with anybody. I think it's more like very supportive and curious people.*
	Luka – *Because I work so closely with our administrators on health and safety, they know like she is the health and safety person, she's very health and safety minded, and they see me more as that. So, collaborating with them and having a good relationship with them makes my life easier as a health and safety officer. And then sometimes, of course, I slip in there about my AT role and that kind of thing. But parents, it's a little bit harder with parents. Because parents are a little more hands-off when it comes to athletics in Hong Kong, overall. It's very, you can imagine in Asian countries, it's very, very academic and these parents and students are paying lots and lots of money to go to these international schools. So sometimes you do find parents, you know, who are more focused on their kid's education, which of course that's very important.*

	Avery – *How hard do I want to fight the coaches in showing them a new technique that I know would benefit the students, but they're a little bit stubborn and old school because they've been in the system for 30 years. And so just kind of working with what I had.*
	Luka – *So, for example, I work along with other administrators, so like principals and vice principals on writing, helping out, fine tuning and changing, and discussing evacuation procedures; so that's more like a fire drill.*

Table 8. Professional and Regional Adapations - Institutional Relationship Quotes

Relationships - Intraprofessional	Paz – *I still have contact with some athletic trainers in the United States. Like some good friends from school and from grad school. Some of them, always be like 'Ah, come back!' You know? I wish it was easy like that. Anyways, last year we went to the NATA convention together. It's kinda hard because we are far apart, but it's nice to talk and share experiences with them because they understand me, it's like, let's say, we speak the same language.*
	Idris – *That's the biggest challenge working abroad. And I would say kind of networking here has been difficult, because it's not as big in here as in the States. So, I don't know, in the States it felt like I had such a close network of other ATs and here it's just very, very small. It's such a small field. So just getting to know people, and network, and become part of the community I would say has been challenging.*
	Oscar – *So kind of big picture or, I guess, almost continent wise, we have our own little you know kind of group chat of, so there's a good number of athletic trainers out here in Asia now. So, I think it's around 50 or so spread throughout. And every year, we try to have a conference. I know that the NATA has put out some stuff on us. So right now, our organization is called APATs. So that's like Asian Pacific Association of Athletic Trainers, and so we kind of collaborate with each other, kind of, across the board.*
	Riley – *Professional loneliness. Until this year, as far as I could really find out in the international school setting in Europe, I was the only one. And there'd be some places that had a physio [physiotherapist] who kind of came and covered rugby or so forth, but I think we all, athletic trainers know there's a big difference in those two professions.*
	Avery – *I think if given the opportunity, we need to take them. As athletic trainers in general, but especially internationally, because you know the closest athletic trainer to me will be 45 minutes away, but aside from that, the closest athletic trainer that I know, who's a PT/ATC is in Italy. And so, you know, collaborating and having a network is so valuable, especially in an environment where you guys are few*

	and far between. I mean in some countries, you're an athletic trainer and there may be the only athletic trainer in the country. And I mean, when I was in Germany, I was one of two that I was aware of, but far and away the only one practicing to any extent like I was. And so, I think that that network is invaluable because even if you're coming from a different country, you're going to have shared experiences and frustrations of working in an international setting. And so, yeah, I am grateful for having been able to connect with several international athletic trainers, but I am also on the International Committee, which helps, but yeah, it's so important to be able to have that number.

Table 9. Professional and Regional Adaptations - Intraprofessional Relationship Quotes

3.2 HEALTHCARE LANDSCAPE

Data analyzed from the *healthcare landscape* domain were reduced into six key categories: Interprofessional Practice, Scope of Practice, Filling the Clinical Gap, Clinical Advocacy, Multiple Appointments, and Resources.

3.2.1 Interprofessional Practice

In discussions surrounding their international healthcare landscapes, participants generally highlighted *interprofessional practice (IPP)* collaboration opportunities. The number of opportunities varied by practice setting, but a large variety of uniquely different clinicians were identified as collaborating with ATs. Conversely, other participants discussed a lack of traditional physician oversight or a hesitation by other healthcare clinicians to collaborate due to a lack of understanding or concern about the athletic training profession. The success of *IPP* relationships were described to be dependent on the strength of two-way communications between participants and other healthcare professionals. Relationships were increased when they were based not solely on clinical work, but as explained, being a human being first. Participants agreed that while clinicians have different approaches to patients, understanding that all are working towards the same goal let differences fall to the wayside and respect grow from relationships that were based in collaboration. Also highlighted was *IPP* collaboration surrounding non-orthopedic problems

including general medicine, emergency medicine, and public health referrals. The quotes for this code are displayed in Table 10.

3.2.2 Scope of Practice

All participants spoke about legal aspects of their positions, identifying things that they could or could not do within their specific healthcare system. Some participants described similarities to ATs practicing within the United States, while others spoke of less direct oversight to their clinical practice. Lack of knowledge surrounding the profession of athletic training was revealed by the majority of participants identifying no licensures or legal structure to help guide their clinical practice. Relaxed or nonexistent licensure garnered desires to acquire new skill sets to expand clinical capabilities which allowed participants to *fill clinical gaps* within their countries. However, others discussed how the lack of knowledge and regulation for their practice limited what they were comfortable doing in clinical work for fear of stepping beyond legal limitations. In some countries, participants explained that due to different culture systems of respect and authority, medical autonomy was not always something they were able to have. Work visas and citizenship to legally live and work in another country presented a different set of problems to some clinicians but not others. Being a dual-citizen or having work positions provide visas for clinicians helped make legal transitions easier, but these were often talked about as luxuries. Another legal consideration for participants was staying credentialed as ATs within the US while practicing abroad. Many creative solutions from local congresses and online learning opportunities were utilized to help solve this challenge. Finally, differences in the legalities of healthcare

cultures, such as ethics and privacy considerations were found as challenges and highlighted by participants as growth points. The quotes from this code are displayed in Table 11.

Interprofessional Practice	**Evander** – *One really good example that I only had last week was just having a close referral network. And so, especially, say if you have a patient become, like I had a patient who came in with some lower back pain. It was quite obvious that there was a high degree of trauma with their case. So, it was really nice to be in a practice where you can collaborate with like some clinical psychologists and refer them out to him and say, 'Listen, he thinks this problem is pain, but you know there's a psychological trauma there that has to be addressed as well.' And so that kind of collaboration is nice to have kind of at my disposal.*
	Lalia – *That happens relatively commonly, but a lot of it is just finding doctors but yeah, from that point of view, there actually really, there isn't a lot of collaboration. And from what I've been told from other people here in Germany, doctors actually don't really network all that much together in general. So, I don't really expect to see much of that here.*
	Idris – *Oh, I would just say, I feel like my, I would say like working right hand-in-hand with an orthopedic surgeon. I call him my secret weapon because we work so close together, and he believes in what I do, and I believe in what he does, and we just have really good communication that way.*
	Chaman – *I don't want to say that, 'Hey, I am better than you' or something like that. We just, I think we're all the same. We different skills and we have different backgrounds, which makes sense, so as long we have the same goal, I don't mind to also learn from them and use their skills to help our athlete because you never know which one is better to each person.*
	Paz – *I also learned from them as well because during my time away things changed here too, so it's been like a two-way street with a lot of exchanging experiences. You know? So, the same time I teach them and share my experiences and knowledge I brought from the athletic training experience I had, they are also giving me something back, you know?*

Table 10. Healthcare Lanscape - Interprofessional Practice Quotes

Scope of Practice	Samir – *We are medical professionals, but then it is the probably I would say that credential difference. Because an athletic trainer in the United States are considered nationally recognized in credentials but then in Japan, our credential, it's not going to be nationally recognized. It's going to be or more, how could I say, not the National um, I really can't explain it. Yeah. The credential is just a difference in between Japan and the United States, that's the big difference. We do not have like final say.*
	Oscar – *It's a lot of self-checks and balances. So, I'll sometimes be asked, you know, a question by a student or a responsibility that might be out of my scope of practice, and now I'll just kind of say, look, that's out of my scope or, you know, I can't really do that, but we can try to find you someone that can. So, you kind of have to have some self-responsibility so you don't get into a position like I said, where now you're trying to navigate through the trouble.*
	Lalia – *In the UK, it's not like I'm someone who can call up their general practitioner or even an orthopedic specialist, that's not something as a sport therapist or athletic trainer that I could do in the UK. That's just not how the medical system there works.*
	Idris – *So I don't know, it's hard. Again, I'm fortunate because I am married to a Canadian, so it makes going over the border easier, but it's actually really hard to work here if you don't follow under, it's called NAFTA [North American Free Trade Agreement]. I forget what it's called but if you don't fall, if your job doesn't follow under NAFTA, then you can't get a work visa. So, it makes it really hard, which unfortunately, athletic therapists don't fall under NAFTA here which kind of sucks and would be nice if that changed. But if they [individuals seeking to go abroad] were to run anywhere, I would say, yeah, go. It's great experience, no matter what, anything's what you make of it, you will learn and adapt as you go.*
	Chaman – *But I will say if you're actually using some like dry needling or Graston skills, you just have to be very cautious because I don't know that the Medical Association here actually made those kinds of certification over here because you just don't want to cause any trouble because it's a different medical system.*

Table 11. Healthcare Landscape - Scope of Practice Quotes

3.2.3 Filling the Clinical Gap

ATs working abroad found a wide array of ways to apply their skill set within the healthcare systems and institutions they were working. Not only did participants identify unique needs, but they also illustrated how they used their skill sets to bring in new aspects of healthcare to their work. Emergency care was the most referenced skill set participants brought to their environments to increase their value. While many native clinicians that resemble ATs abroad matched evaluative and therapy skills, the acute care and event/game healthcare management held unique value across the international landscape. Emergency care was tied tightly to discussions with participants surrounding the lack of international knowledge or concern for concussions. The management and education of concussions were described numerous times as a new aspect that clinicians brought to their settings. Another unique avenue expatriate ATs described having a strong impact on is adolescent healthcare and wellness surrounding athletic activity. American based international schools provided a niche opportunity for these clinicians. By having a strong knowledge of the American based sporting culture, ATs managed the setting from injury diagnosis to healthcare administration in a manner that local clinicians could not to the same extent.

Not all participants worked in settings that closely resembled American-based sports in a secondary school or professional sport setting. Individuals working in other settings, like clinics and institutions, were also able to find gaps within their healthcare systems that their skill sets filled where other professions did not. Less traditional AT skills such as administrative management, referral and collaboration skills, and strategic planning were described as niche clinical skills that were new and valuable to these settings. Within the athletic training skill set, the

thought process for injury evaluation, strength of rehabilitation creativity, and injury prevention programs were clinical skills and attributes that added to the uniqueness and value of the athletic training occupation abroad. In addition, participants described soft skills that increased their ability to fill in healthcare gaps within their countries such as strong communication, creativity, and resiliency. The quotes for this domain are displayed in Table 12.

3.2.4 Clinical Advocacy

While participants often described being one of few, or the only, AT in their clinical settings, many expressed the desire to further promote the athletic training profession within their country and setting. Often driven from negative feelings of *self-efficacy* from a lack of knowledge about their profession, participants emphasized the importance of changing this. A desire to see the profession grow internationally was carried out in many ways from volunteer work to show the value of ATs as resources, starting conversations to educate about the profession, to beginnings of legislation for ATs as healthcare professionals abroad. Communication was often described as the cornerstone of advocacy. Education about the profession was accomplished through the ability to explain what clinicians could bring to a position, and the demonstration of the value of ATs to an organization. These actions resulted in professional growth over time. While much of the advocacy work done for the profession was centered around actions rather than words, participants were clear that education of the skill set was needed as a precursor to expansion. The success of advocacy was key to the development of relationships between participants and administrators, team staff, and other healthcare professionals. A wide range of advocacy examples were found as each country presented a different depth of knowledge pertaining to ATs. Participants also took

time to outline their ideals for the growth of athletic training and sports medicine abroad and explain the ways they were working to progress the profession in their settings and country. The quotes for this code are displayed in Table 13.

Filling the Clinical Gap	**Haris** – *I just personally feel that there's tons of ways for us to fit internationally and raise the collective sports safety standard of, especially in adolescences. It's really a shame that a lot of the sports organizations out here internationally are just really far behind on some of the things that we're very competent at, like the concussion, sudden cardiac arrest, and emergency planning, things like that that you know are just glaring shortcomings by a lot of organizations and I think we could really benefit organizations like those.*
	Julia – *As more and more people sought me out people were amazed at how I can help them. So, opening those doors up to understanding manual therapies, and rehabs and it's something that people never knew that there was a value to my position. They just thought it was a value for maybe some athletes. Now that value is growing a lot within the teacher community, which then will spread to parents, and then also our students.*
	Felix – *Because this as an [athletic] trainer is kind of the bridge with the coach, head coach, and the medical staff. Like doctor, with the athletes. So, we have to rethink their opinion or thoughts or something kind of stuff. So, I think communication is really key.*
	Chaman – *I think maybe our practice, like as I know that in US, we pretty much embrace evidence [based] practice. We always look at the research that come out recently, but I don't think they do that that often. They usually still using book in there from school, or when they're the intern. And maybe sometimes just from the books. They don't look at those research that often, but I usually do.*
	Leo – *Let's say, a couple days ago, one of the orthopedic doctors asked me, what would you do with a Grade II supraspinatus strain or tendonitis patients? And I asked him back, 'What would you do?' and he say, 'Quite honestly, injections and rest and some treatment.' And I said, well, I would like to look for the reason why the supraspinatus is damaged. The kinetic chain, what the supraspinatus, rhomboids, scapular stabilizations, and thoracic mobility and core. So, after the injection, I would go on all about rehabilitation exercise. To have them. Say, I tell them that why supraspinatus is damaged. The supraspinatus is a victim, and you're trying to help the victim only, but those attackers are outside of the supraspinatus. So, I try to find those bad things out[side] of the supraspinatus, and I try to get rid of all the bad things like scapular instability, and*

	thoracic issues, and other rotator cuff things and then work on the supraspinatus to get better; not just injections. And it's been working a lot.

Table 12. Healthcare Landscape - Filling the Clinical Gap Quotes

Clinical Advocacy	**Avery** – *I think just constantly making a point of showing my value as an athletic trainer and as a professional, I was able to do that very well while I was there last time and I intend to hopefully do that again this time. But all of my good intentions could be for not and if somebody doesn't buy in who has power to say so if, you know, we have an AD who doesn't want me there, I can't do anything. My hands are tied at that point. So you know if I could just sit everyone down and go "Hey, look, this is valuable, I hope you realize that." then I would, but really the best way for me to do that is to just continuously prove my worth and value and hope that they recognize it.*
	Aspen – *Being an international school setting like you're always looking for how to make the title better and how to, I don't wanna say justify, but prove your worth. Because I guess to create a position for me, it took a lot of, you know, different people seeing the value. So, like for me, it's more like, you know, in a way of thanking them and prove them right. I want to make sure that I'm providing everything that I can possibly to better the lives of the students there.*
	Lalia – *So it's less about necessarily growing within the role here itself, but actually growing the culture of having athletic trainers in schools in the region.*
	Riley – *I think that will be the biggest thing is just trying to like educate people, you know. Not just about injuries such as concussion, although that was a very big and it's been a very long process, but what does an athletic trainer do. That's been a pleasant challenge, that one wasn't miserable.*
	Oscar – *There's a lot more education that goes with it. So, educating both, you know, not just the students, but then the staff and the parents. So, I was the first athletic trainer at my current school. So really kind of showing what the profession is all about and what we can do.*

Table 13. Healthcare Landscape - Clinical Advoacy Quotes

3.2.5 Multiple-Appointments

To be able to sustain working abroad, clinicians talked about having multiple employments within, as well as separate, from their main sports medicine placement. Positions ranged in numbers, intensity, frequency, and relatability to sports medicine, but proved to be helpful to participants in a variety of ways. The most expressed reason for additional appointments was for financial support to sustain living abroad. Education was a common second appointment including teaching sports medicine courses and conducting research. Masseuses and clinic positions also provided individuals working with sporting teams' opportunities to have additional income. As explained by participants, international sports are valued differently than in the US. While many ATs within the US work with professional, national, or elite level sports as full-time positions, clinicians working with these elite athletes internationally are not compensated the same as in the US. For this reason, they could not reply on one position to be the only source of a participant's income. Gaining new networking connections and expansion of skill set were other motivations discussed for having multiple positions. Creative appointment combinations came hand-in-hand with additional certifications, education, and clinical expertise which allowed professionals to be able to sustain life and work within their countries. Many of the scenarios were specific to the country, sport, and setting in question, but researchers found this necessity to obtain multiple positions notable to the culture of the international AT. The quotes of this code are displayed in Table 14.

3.2.6 Resources

Participants spoke about the uniqueness of their positions including the access of *resources*. Resources included expendable items and supplies, institution finances, and availability for growth and expansion within their work roles. All of these resources were discussed in a range of ways depending on the stability of their positions and the availability of athletic training to grow within their countries. Many also stated that the pandemic affected their jobs in a variety of ways related to *resources* and leave them with a sense of uncertainty. The quotes from this code are displayed in Table 15.

Multiple-Appointments	**Devon** – *I also had my own clinic, so I would have worked from home. So cause I have a wife and kids and stuff and rent in Ireland is very expensive. So I would have worked, say, a normal job during the day. So whether it was in the school doing the Medical officer or more recently, back to tax again, just when we had the second kid because we needed more money and then I would have done like clinics in the evening. So when you run your own clinic around your kind of client base or patients. And then mostly team work, then hurling league on weekends.*
	Caris – *I currently have three jobs working. I teach at a university, I'm a lecturer there part time. I also have a part time position in a high school setting in Tokyo. And also, since I'm a licensed masseuse and acupuncture specialist, I do like homecare to the elderly.*
	Luka – *Yeah so, my role, I used to, for the most, I think for six years really, I was doing like three kind of, three different titles. And so last year and starting this year, more my role has become really split where it's athletic training with athletics department and then my health and safety role.*
	Evander – *Yeah, so I work in a couple of different roles and my main roles at the moment would be a research assistant in the [Health and Performance School within Irish University]. And then I am also an athletic therapist working in two private practices in Ireland, and I also work with a couple of different teams part time and these kind of range from Community level sports to international basketball teams.*
	Leo – *I am, I would say I'm a professor, but I am still a clinician. And I love clinician. I would love to take pro athletes and just ordinary people.*

Table 14. Healthcare Landscape - Multiple Appointment Quotes

Resources	**Samir** – *Well, I'll say it's a big culture in Japan too, but then it's not really comparable to the United States. So, we don't really use money and invest money into sports as much. So it is difficult to manage the like financial aspect and we have to really think about like know how we're going to get some medical supplies and from where. There's no like big sports culture so like we have to really negotiate and explain. On why*

Resources	*it's very important for us to have some, you know, like some emergency equipment at school, or in like every venue in our school. And it is very time consuming to negotiate, explaining people, and let them understand.*
	Asan – *Then make during the practice, I provide healthcare and I do some rehab during the practice, actually, because right now, we don't have, we don't have athletic training room. So, I know the environment here is not ideal. So, it is sometimes challenging but I am handling well so far.*
	Caris – *I was fortunate I think even in when I studied in the US, and I was able to work in the secondary schools. And they didn't have a lot of what you would have [modalities and rehabilitation equipment] in the in the university settings. That was really fortunate for me. Working in that situation, I started from scratch in the US and then when I came back to Japan, it was kind of like in a similar situation. So I didn't have, like, "Wait, why don't we have whirlpools?" or "Why don't we have this full set of facilities for this professional team?" or all of that. I didn't have any of that. So, I started in both situation through [only having] the ideas and what I had. And fortunately, or unfortunately I managed to deal that with that. So, as I said, professional settings, that was one thing. And then with this high school, I was thinking like, I didn't have anything. So, I had to manage with what I can do within that situation.*
	Hugo – *But Venezuelan clinic was kind of crazy. We have about 90 patients per day for the two therapists. Me and another therapist, with an assistant in one day, and had nine-zero patients. I left this doctor's clinic, about two and a half years ago and started in the current clinic with some others. But with that clinic I had about 50 patients per day.*
	Riley – *And then the travel is different in a high school level. Our kids travel a lot and travel well, so we will go play a school in Germany where on Friday morning we'll get on the plane, go to Germany play that evening, play Saturday and get on a plane and fly back. So that's different and learning how to be an athletic trainer, visiting athletic trainer, in a place that doesn't have them and building upon that profession has been a pretty, at times frustrating.*

Table 15. Healthcare Landscape - Resources Quotes

3.3 PERSONAL PATHWAYS

Data analyzed from the *personal pathways* domain were reduced into two key categories, with one of these including two subcategories: Skills and Professional Development, Motivations – both Internal and External.

3.3.1 Skills and Professional Development

One wide topic discussed by all participants focused on *skills and professional development opportunities*. The addition of advanced clinical skills was attractive to many professionals to add value to their clinical positions and was widely influenced by their countries' treatment styles. Certifications and specialties were used to gain versatility to new environments and become more marketable to the international community. An internal desire to continually learn and grow was echoed throughout many clinicians with both local and US-based educational opportunities. While some participants spoke of a strength of their clinical skills, they also explained a need for additional personal skills related to international practice and communication, specifically highlighting the ability to speak different languages. While some participants spoke the language of the country they were in or were in work settings that had English easily accessible, this was not true for all. Participants who did not have prior knowledge of the language they are immersed in had to find other avenues to create relationships, understand signage, and live life outside of clinical practice. To help assist with these transitions in the work setting, participants

relied on translators and past education of basic language. Participants who moved to countries where they already knew the native tongue showed distinct advantages as far as communication and ability to develop rapport and relationships with colleagues and patients. The quotes from this domain are displayed in Table 16.

Skills and Professional Development	**Lalia** – *I think language skills are the most important really, even though I've worked in English speaking settings, being able to speak conversational Spanish, and being able to have those sorts of language skills, and be able to in German skills as well like being able to understand doctor's notes, has been very important in the role.*
	Samir – *Well, I really like I didn't get any [official] additional certification. I just like personally learned by going to seminar or Convention. So, I didn't really have any other certifications, but I just learned. Like, one is some eastern medicine. Not like a Western medicine way to approach it. But, yeah, I learned some Eastern medicine. Sorry. It is maybe like a difficult to be understood, by people in a Western side, Western country, but then yeah there are some like Eastern medicine that is kind of indigenous to Japan or China. I used to be working with track and field athletes and so they really believed in Eastern medicine. So, I study about that. It was very, very helpful for me.*
	Avery – *And then I actually ended up, while I was overseas, getting a second master's degree in secondary education. So, I'm also a licensed biology teacher, which is not necessarily what I want to do, it's a good backup to have, but really, I got it because, it's the potential for me to get into the system that I'm working to expand athletic training in as an employee. Because since they don't have athletic trainers, but they do, obviously, hire teachers, I got it for that reason. Whether or not I actually end up using it, I don't know. But I did end up getting a second degree while I was there in order to potentially use it to further my athletic training professional goals.*
	Devon – *You know, it's a lot of hands-on stuff. So, you know, deep tissue massage, stretching, PNF, muscle energy techniques, Mulligan mobilizations, like all this stuff comes in, dry needling, you know, you obviously don't know what's going to walk through the door and you just need like a toolkit to have as many things as possible.*
	Felix – *So if people who have a certification of acupuncture and certification of athletic training over form United States, they kinda really strong and they have many advantages to working with the team.*

Table 16. Personal Pathways - Skills and Professional Development Quotes

3.3.2 Motivators

Motivators were characteristics and factors described by participants on how and why they moved to and stay within international athletic training. These factors varied greatly amongst all participants, but community and life experiences were spoken of most highly. Two types of motivations emerged, internal and external motivators.

3.3.2.1 Internal Motivators

Internal motivators included the rational and defining points within a participant's journey to their current position. Pathways to becoming international ATs were intentional for some and by chance for others. Participants keyed in on internal drive, resilience, national pride, and caregiving for family and within healthcare as some foundations for desires to work abroad. Previously positive international collaboration experiences, personal experiences, and desires for a change from traditional US-AT clinical practice were also commonly described as rationale for pursing international positions. The quotes for this code are displayed in Table 17.

3.3.2.2 External Motivators

External motivators included specific details described by participants surrounding the international experience working abroad not specific to the individual's own path to their international position. Rather, the participants were motivated by the practice setting and external life opportunities offered internationally. Participants detailed the niche

market of international athletic training and the uniqueness of the opportunities available to clinicians. Additionally, there was an emphasis on using networks and connections to be able to enter into this practice setting, and their overall advice to the future of international sports medicine. The quotes for this code are displayed in Table 18.

Motivators – Internal	**Bryce** – *I said I'm done with that. I haven't done any traveling and I'm almost, you know, I was like, a couple years out of college at that point. And I decided that I was just gonna leave. So, I just packed up and left. I went on a backpacking trip and ended up in this town in Vietnam, and I got a job at as a teacher, somehow. It at an international school and I didn't know what an international school was until that point. So that was my introduction to it, and then I found a job on NATA website at [International School] in Hanoi, and that just blew my mind. And I was like, whoa, I guess this is possible.*
	Luka – *Well, so very broad, but to try and keep it nice and sweet, is I'm actually Chinese and I was born in Hong Kong, which is where I am now. But I moved to the US when I was young, got involved in sports, which led me to athletic training, you know, started working as an athletic trainer and really wanted to kind of be able to practice and do what I love, in Asia and in an Asian community and really share that knowledge of what we have. So that really led me to the international world. I did a one-year internship overseas and just fell in love with it. And then I also came back to the US to work, but kind of really missed that international lifestyle and for some personal reasons I moved back to Asia, and have been working in Asia in Hong Kong for now this is started my seventh year at the same school, and I love it.*
	Devon – *And I think for me, like, I'm definitely not done. I haven't decided yet, but we're not done traveling yet. And obviously it's harder with two young kids, so it's tougher for us. But I did the BOC because I want to go to America at some stage. And through the Irish, there's equal, mutual recognition with it with the Irish model so.*
	Julia – *My work life balance is healthy. I actually think it's going to be really hard to come back to the US and where I'm looking at a 40-to-50-hour work week, I'm now going to look at a 70-80-hour work week, and I just don't know that I'd be able to do that when I come back. Which I will, but so yeah. That's kind of a long-winded answer, but it's hard, but it's worth it.*
	Leo – *After five years, end up I decided to go, come back to Korea. And there was one thing, if I have stayed in America, I would have been about the same [level of] athletic trainer as other athletic trainer in the States. But I came back to Korea, and I was absolutely outstanding athletic trainer. I understand rehabilitation*

	knowledge, so I had a lot of fun here and a lot of people were looking for me in Korea because there was not many athletic trainers well educated in Korea. So that's why I came back here.

Table 17. Personal Pathways - Internal Motivations Quotes

Motivators – External	**Riley** – *And again, in a nice way, kind of you have a job to do, you do your job, but you also have a life. And international athletic training, I mean, you get to see the world as much as you want. You get to meet other likeminded curious about the world people who have all done amazing things. And especially on the physical side of things, you know, you meet the people that like they just do a lot. Oh yeah, well I was scuba diving in Indonesia for spring break or yeah for, you know, winter we are skiing the Swiss Alps, because that's what we do every winter. You get to live in a place, like living in London's one of the greatest experiences ever. Everything comes to London, every musician, every art thing, every you know even every sport comes through and so to get to experience all this stuff is just, I mean, it's beyond a blessing.*
	Devon – *So the book is just about, it's about the rebel ideas, it's about having people from different dynamics, so if you have same people, if you draw a rectangle and within the rectangle you draw a circle to one side and that could be, say the lead physiotherapist, but if he's recruiting all the same people, from all the same colleges, with all the same training, that circle is going to get smaller and smaller and smaller because they're not expanding their horizons. And the rectangle will never be filled, but if you add someone, say from Spain or from a different background, immediately there might be an overlap of what they know, but you have a second circle, kinda like a Venn diagram. And then you get a third person, and you add in another person with more background and you end up covering as much of that rectangle as you can. If you take the time to do this, so how much one can know, one of us in a certain area. So that was just physiotherapists in physiotherapy or sports therapy or whatever, you know, so it's all about trying to get people from different backgrounds to look at the same problem, because people would have different insights into it.*

	Noor – *I think, a lot of them, [other individuals who have inquired about or gone abroad connected to Sports Medicine], have the same idea that I had, which was an excitement, an interest in having a different life experience.*
	Aspen – *I think anybody kind of interested in athletic training overseas, I think it's a really small niche, so if you're interested in in it, all the people that are currently overseas are more than welcome to the idea and want to help you, kind of, find an opportunity.*
	Julia – *And I have been, this is the end of my second year, but I'd say I've only been there a year and a half, because I left in January and never made it back, but I saw 13 countries in the year and a half. Through vacation, through traveling with the school, through field trips that we had that were non athletic training related, and that has been an experience that I would never thought in a million years my life would look like.*

Table 18. Personal Pathways - External Motivations Quotes

4.0 DISCUSSION AND CONCLUSION

To the researchers' knowledge, this is the first investigation of its kind to examine the lived clinical experiences of expatriate ATs. Our investigation was successful in gathering information on a wide breadth of topics surrounding this clinical practice setting and its professionals. By utilizing qualitative research, an additional depth of topic discovery was gained by participants ability to discuss all aspects of their clinical work within the international healthcare setting. Typically, there were expressions of optimism and joy from participants regarding their international journeys. Each participant faced unique struggles along the paths to their positions and combined creativity with problem-solving skills from the athletic training toolbox to pioneer their own solutions.

However, the range of situations encountered by participants was vast, and responses were incredibly unique to each clinician. While challenges were common amongst participants, the effect of these experiences varied greatly depending on the country of practice, the network surrounding the individual, and the amount of others' knowledge about the profession of athletic training. Our results were successful in exploring many aspects of expatriate ATs' lives in addition to meeting the specific aims directing the study.

4.1 Clinical Skill Sets of Expatriate Athletic Trainers

The heterogeneity of clinical skill sets developed and used by participants varied as widely as the countries represented in our investigation. Each country, and each practice setting, demanded different clinical skills from participants. The skill set of an AT is known within the US for its versatility and ability to fit into many roles.[15,68-70] This too played out within the international setting. In regard to our study's first specific aim looking at clinical adaptations, we found that participants did not discuss day-to-day clinical tools when referring to their work skills, but rather explained the unique expertise of athletic training that allowed them to fit into clinical or administrative gaps. An observatory studies series published by the World Health Administration (WHO), examined health professions' mobility in European countries. In the United Kingdom they found a variety of healthcare professionals who, once settled into their new country, tended to identify places to live and work that better suit their skill preferences. More specifically, these individuals embraced their expatriate status and found niche roles that reflected this such as in embassies or international organizations.[136] We too found that our expatriates needed the ability to adapt to different situations and find settings that appreciated their skill sets. Over time, participants adapted their clinical focuses and professional roles to blend with the countries healthcare system. While some participants were able to create their own positions, others echoed Buchan's findings that finding roles that were similar to a traditional US athletic training role was more beneficial, the prime example being the international secondary school setting. Teaching within academia was also found to be an easily translatable job that allowed them to create a new role to practice athletic training while still having a 'traditional role' in secondary and collegiate school levels. This setting added to clinical and professional development. Academia has been

found throughout literature to be a commonality for all countries that self-initiated expatriates have been able to capitalize on.[137]

Even with adaptations of roles, pieces of the athletic training skill set were found to be distinctive. Bringing new skills to the international healthcare scene while fitting a known need increased participants' marketability. Expatriate professionals within the business world were found to be more focused on their individual employability over the organizations they represented.[37] This idea of becoming more marketable was part of a 'boundaryless careerist' ideal and defined by Thomas et al as someone who builds their own value in the labor market through expatriation to expand themselves and become more relevant to changing career markets.[138] Some of our participants echoed the sentiments of a boundaryless career and the desire to use their setting to grow as professionals. All participants, however, spoke of a need to 'sell themselves' within their traditional job markets which was made possible by their expanded areas of expertise. The most discussed skills that enhanced participant's marketability in international healthcare networks were emergency care, management of event coverage, concussion education/care, administrative duties and aspects, and adolescent healthcare.

Even after being able to sell a multifaceted skill set to employers, many clinicians in our study found that their ability to practice in their country felt limited by the lack of clarity surrounding the legality of their skills without a *scope of practice*. Not being a recognized as a healthcare profession in a country was not uncommon of healthcare expatriates.[136,139] A range of providers who moved to the United Kingdom found the lack of recognition of trainings and qualifications by regulatory bodies to be a barrier. An additional challenge was confusion surrounding the amounts or type of evidence needed to present to gain registration as a provider in the United Kingdom (UK). In an investigation of allied healthcare workers who moved to Saudi

Arabia for work found 20% of participants could not indicate any sources for standards of practice within the country. 50% of those who responded described their country of education as their source of legal guidelines to follow, and others referred to the internet and peers as their main sources of legal guidance.[140] This *role incongruity* coming from countries' healthcare professionals to those who move countries was found whether the professionals' profession was established in that country or not. For ATs such as our participants, being a recognized profession, colloquially or legally, was extremely rare. Our participants echoed these challenges and described a variety of personal checks-and-balance systems to direct the legal boundaries of their clinical work. From employers to lawmakers, a lack of awareness surrounding a profession's skill set, specifically allied healthcare professions, adds challenges to clinical practice and limits individuals' employment opportunities.[37,138,139,141] Even with clinicians' desire to have a boundaryless skill set and career, having to self-identify ways to legally practice within new country proved to be a challenge.[37,138,139,141]

A more global concern of medical expatriation is the increase of the medical brain drain.[6,50-52] This patterned movement of health providers from developing countries to developed countries occurs for many reasons, including wages and opportunity. The biggest concern with the brain drain movement is the loss of medical professionals in developing countries that would help develop their medical systems. ATs, however, would fit under a specialized category of healthcare providers under the brain drain model. While the profession of athletic training is never specifically mentioned, the profession of physiotherapy, a close international counterpart, was included in discussions of ethical international healthcare provider movement by the United Kingdom's Department of Defense.[139,142] England's model for ethical international health care provider recruitment was the first of its kind in response to the World Health Organization's (WHO)

concern for the brain drain. This document outlines 153 countries that were restricted for provider recruitment, while other healthcare professions were given ethical considerations.[139,142] As ATs continue to grow in the international community, ethical consideration of the impact that the specialized skill set of ATs will have on the healthcare community they are joining should be considered.

The impact that the AT's clinical skill set has on its new healthcare community will depend on the setting in which professionals work. Our study found that while many clinicians were working for private companies, schools, and sport teams, some participants contributed to the greater healthcare communities in positions such as clinics, public hospitals, and the military. According to Edstrom and Gailbraith, expatriates can be utilized by companies in three ways.[143] First, by acting as 'position fillers' when the local community cannot supply enough trained individuals. Secondly, to increase the leadership and management of a single individual within an organization. The third reason, which can be applied to the business of large-scale healthcare communities is related to organizational development. These authors conclude that there is an increase in knowledge gain because of outside ideas joining an organization which adds to stability of the organization.[143] The ATs who participated in our study echoed this sentiment. They expressed that the ability to use their unique clinical expertise brought new clinical skills to their settings, and therefore, created collaboration opportunities by increasing knowledge transfer and enhancing healthcare structures.

The addition of ATs and other specialized allied healthcare providers is an indication of a developed healthcare network.[139] Therefore, as ATs enter this international healthcare setting, they contribute to an increase knowledge 'brain circulation', rather than a brain drain since the loss of these professionals is not detrimental to the original home country.[139,142] The idea of a brain

circulation was originally introduced in the General Agreement on Trade in Services by the WHO. Its purpose stood to provide a system for smoother merchandise trade channels, including health care professionals and services.[139,144,145] Rather than following the brain drain movement pattern, expatriating ATs filled vacancies in a multitude of countries and practice settings, regardless of medical system or monetary value, which brought new and contributing clinical skills which enrich the local healthcare market.

Participants discussed the vital nature of a colorful variety of clinical skills that were unique to each country and practice setting they were in. The versatility of the athletic training skill set and its ability to mold to different organizational needs was bright against the contrast of scope of practice and profession recognition challenges. Participants embodied a boundaryless potential and created opportunities to advance themselves in their healthcare careers by filling in clinical gaps within their settings.

4.2 Personal Skills of Expatriate Athletic Trainers

While clinical adaptations were important, participants consistently highlighted the importance of personal skills and personality traits to successful international work. Our investigation's second specific aim looked to determine what characteristics of expatriate individuals were most advantageous to international clinical work. While specific skill sets used by expatriates are poorly represented in clinical literature, our participants identified three traits that were most impactful to their success: communication, receptivity, and ingenuity.

Communication is crucial to all international healthcare providers.[146-148] The ability to communicate purpose, desire, and ideas was definitive of expatriates' abilities to function professionally and how they experienced general life abroad. The ability to communicate needs or wants in any facet of life stops and ends with the importance of language.[146,148] The most notable tool discussed by participants was language. Having the ability to speak the native tongue of a participant's country significantly impacted their life experiences.

In a large study speaking to healthcare providers expatriating to and from Germany, language was reported as the biggest barrier in international practice. Not only was general language a concern, but incongruity of clinically-based language deepened language deficits. Furthered by a lack of language integration classes available to expatriate clinicians, personal challenges developed from this lack of language such as prejudices and unkind behaviors from co-workers.[139,141] This decreased ability to communicate was not only problematic to clinical practice, but also general life experiences. The self-efficacy of the clinicians was severely damaged from prejudices and challenges created by inability to communicate.[141] Two unique studies, one from Saudi Arabia with allied healthcare workers, and one from East Asia with business and engineering professionals, both found that diminished self-efficacy may not negatively impact professional work but is a strong determinant of social success and positive adjustment to new environments.[140,149] While this trend was also seen amongst some participants in our study, *self-efficacy* was more closely related with other's knowledge or lack thereof about the athletic training profession, and therefore support as healthcare providers.

The second most identified personal trait for international clinical practice by participants was receptivity or openness. The most notable need for receptivity was found in the form of cultural competence. Primarily seen within our study as openness towards new ideas, the Centers

for Disease Control (CDC) describes *cultural competency* as 'a set of congruent behaviors, attitudes, and policies that come together among professionals that enables effective work in cross-culture situations.'[150] While this may be a topic taught in athletic training education, it becomes the complete foundation of the international clinician's professional practice setting.[99] Participants explained *cultural competence* in a variety of ways, but all echoed the same sentiment that it was crucial to their ability to practice abroad. While some described it as a necessity to working with new ideas or treatment options, others described it as a blending of practice philosophies. Our clinicians described adjusting to different treatment philosophies and healthcare systems but stated that with patient healthcare at the center of their and other providers' work, this sparked an increase in desires for interprofessional collaboration.

An unexpected difficulty with expatriate clinical practice is understanding cultural expectations that can challenge clinicians' ethics.[151] Expatriate healthcare clinicians' actions all have ethical considerations as they bring new ideas and technologies to an area. More commonly in humanitarian expatriate work, the moral experience that patients and the new healthcare system encounter can be both positive and negative.[151,152] Ensuring incoming practitioners' motivations and expectations are clear as well as recognizing current organizational structures help to diffuse feelings of unease and concern of new influences.[151,152] ATs in our investigation were not found to be abroad for international humanitarian work, however, another form of ethics emerged from our data. While understanding the local healthcare system structure was crucial, similar to humanitarian relief clinicians, our participants found the lack of professional fit within this structure presented a challenge.

Ethical dilemmas such as culturally differing views of pain, referral networks, and injury management strategies were commonly discussed. These ethical considerations tied tightly to a

need for *cultural competence* education when entering a new network and culture. International medical graduates working in Canadian healthcare concluded cultural challenges to be one of the top five concerns of their move and spoke to a need for cultural education in this environment.[151] Within athletic training, students who completed short term study abroad trips reported positive learning experiences surrounding learning *cultural competencies*.[99] The importance of learning the intricacies and cultural expectations of participants' countries was highly emphasized. Whether it be humanitarian work or moving to another country, understanding the implications that a new mentality and profession can bring to an existing system is crucial for future clinicians.[141,152] Taking this perspective into account can also reduce complications or negative experiences faced when a new profession enters the system. Our study's participants found, in line with humanitarian and healthcare expatriate trends, a lack of guidance within their new medical systems created obstacles for clinical practice and adjustment to new environments.[139-141,153,154] However, the systems themselves only create some of the obstacles. The *cultural competence* of not only the healthcare system, but the patients' care expectations was definitive of adaptations clinicians had to make within our study. Culturally different expectations towards managing pain and willingness towards surgical interventions were commonly found amongst our participants. Unfortunately, specific adaptations to cultural expectations have not been well discussed in the literature.

Another aspect of *cultural competence* and ethics are different viewpoints towards gender, age, and race. Dejardin explained that the cultural construct developed by each country was based around the social values, norms, and ideas given to the societal roles of men and women.[154] This in turn defines their decision-making capabilities and entitlements.[153,154] Our participants were unique in the fact that they do not fit the typical female expatriate found in literature. Berry identified that the most common expatriating females were traditionally traveling with supporting

spouses and would look for care work within new countries.[155] Only one study was found in which females were the majority of self-expatriating professionals, and this included healthcare providers moving to Saudi Arabia.[47] A similar population to our own, female participants were typically traveling for their own careers under the boundaryless career ideal, even if some were following familial ties.[47] Some participants spoke of instances where their gender was not openly accepted and created cultural challenges in the work setting. Several of our participants described being able to overcome these cultural challenges relating to race, age, and gender. Participants utilized trust and consistency overtime to move beyond these challenges. However, this was not true for all clinicians; especially those working within sport settings. Cultural norms towards race, age, and gender also played a greater role in participants' experiences than researchers expected. The impact of these factors on expatriating clinicians is not well explored in international literature or healthcare literature and could be an important investigation for future clinicians.

Participants spoke highly of other healthcare professionals with whom they worked and emphasized a need for respect for the different cultures and traditions. These adaptations to *cultural competencies* blended with their own healthcare philosophies and treatments create a mosaic for healthcare practice. Due to this, participants were cognizant of their environment while still bringing new ideas to the healthcare system. This theme, consistent amongst participants, was beautifully illustrated by Harzing's explanation of expatriates' impact.[156] He identified three roles for expatriates coined as bears, bumble bees, and spiders. Bears replace previously existing systems, bees create new ideas from having been in many places moving place to place, and spiders are expatriates who weave ideas to develop a new system of communication and socialization.[156] International ATs fit to this concept as spiders, taking pieces of multiple cultures and medical

systems to create an intricate web of connections and resources to provide care that is patient centered and culturally mindful.[37,156]

A study from Bhatti and colleagues discussed the 'big five' personality traits and their impact on expatriate's adjustment and performance.[157] The 'big five' traits name the ranges of the main aspects of personality and include openness, conscientiousness, extraversion, agreeableness, and neuroticism.[158] Cultural competence is a form of consciousness and is displayed by clinicians' awareness of differing ideas and blend clinical practice to be mindful of culture. Expatriate individuals displaying high conscientiousness showed strong work-based adaptations over personal ones.[157]

Another personality trait of the 'big five' is openness.[158] This was described by participants in the form of ingenuity. Creativity and problem solving were driving forces to clinical success. With *resources* varying greatly dependent on positions, new ways to approach challenges such as not having athletic training facilities or money to purchase supplies were required. Of all the 'big five' personality traits[158], our study found openness to the be most advantageous to expatriate adjustment, however our study did not look at determinants of success. Openness additionally falls in line with the boundaryless careerist with drive for new opportunities such as creating positions that fit niche markets.[138] This personality trait also refers to imaginative and creative individuals which matches our participants descriptions of needing strong problem-solving skill sets to perform well in their settings.[157]

Personal skills have been argued throughout expatriate literature to be even more influential than clinical skills or knowledge.[159] An individual's ability to evaluate their setting, manage stress, and adapt to solve problems was largely linked to determinants of success.[160] Our study displayed similar findings with traits of communication, receptivity to new ideas, and

creativity as the cornerstones of their ability to work abroad. Similar to Bhatti, high openness and conscientiousness contributed to both job performance and life adaptations.[157] The second specific aim of personality traits was well discussed and developed more conversation than anticipated; these skills seeped into every aspect of a clinicians work and life while abroad. Not only was their daily life dependent on their ability to have resiliency and ingenuity, but this mentality helped pave the way for new positions to be created.

4.3 Motivations behind Expatriate Athletic Trainers

The study's third aim delved into the *motivations* behind US-ATs and their desires work internationally. Kingma explained that expatriates' motivations to move is not strictly one dimensional.[161] Eight common factors, economic, quality of life, career advancement, safety, life partners, adventurers, holiday workers, and contract workers explained the basis for most expatriate moves according to their research team. Kingma et al identified that motivations to move and stay abroad were highly influenced by the pathways that individuals experienced to get to the current point in their career.[161] Our study aligned with this and was able to identify three distinct pathways that brought participants to international athletic training. Not only was our study able to delve into the motivations behind moving abroad, but also what kept clinicians there.

The first pathway identified included individuals who were born in the US, studied athletic training in the US, and then went abroad for work, called US-ATs from here on. The second pathway consisted of individuals who were born outside of the US, studied athletic training within the US, and either returned to their home country or went to another country outside of the US for

work, called Int-ATs from here on. The final pathway identified included participants who studied athletic training or athletic therapy within the US, Canada, or Ireland, and moved from one of these countries to another for work and sat for the comparable certification exam because of the MRA, and therefore, referred to as MRA-ATs from here forward.[91]

4.3.1 United State Born Athletic Trainers (US-ATs)

US-ATs' pathways to working abroad ranged widely. Some deliberately moved abroad following family or life circumstances while others explained feeling burnt out from their current positions and were looking for new life experiences. Others described desiring longer term international work after smaller or unexpected exposures to the setting. Shibata described a short-term study abroad program for athletic training students in Japan that desired to expose students to international sports medicine as well as encouraging cultural competence in a clinical setting.[99] Earlier exposure to these settings increased preparations for collaborative practice, and in turn makes clinicians more open to new opportunities within the international world.[162] Several US-ATs also discussed having feelings of burnout or boredom in their US-based settings before looking for their international position and stated that they craved additional life balance or adventures.

These desires and motivations to pursue international work was consistent with other healthcare professions who expatriate. Nurses in India stated that working abroad provided opportunities beyond monetary benefits including new freedoms, boundless career options, and things to learn.[37,163] Padaiga found that allied healthcare professionals in Lithuania expressed desires to move, not for monetary reasons, but for burnout and feeling undervalued.[164] The other

trend found in literature is the desire amongst European physicians and nurses to move to other countries within the European Union for better working environments, wages, and learning opportunities. While wages may be one driving factor for these physicians, as Kingma explained, motivations are often multifaceted rather than singularly driven.[161]

Non-monetary factors proved to be more important personally and in job satisfaction to providers expatriating over solely monetary gains.[165] This multifactorial motivations concept is supported by Buchan who described the Push-Pull theory of expatriation.[166] Health workers have factors that both push them to leave and pull them away. While the net value from the push pull consideration is the same, having an expatriate in a new country, understanding that factors from where they come and where expatriates are going can impact their decisions.[166] ATs fall into this model, with low pay and unstable work environments pushing them to look for other job options, in addition to travel opportunities and career development as pulls.[71] The difference and potential challenge is that ATs are more likely to expatriate to a country where their profession does not exist. As found in a 2005 study by Vance, expatriates who moved for work in established multinational corporations, found significantly more support and did not experience the same disadvantage as those who self-expatriated.[167] Many of the US-ATs would be considered self-expatriates, therefore exposing them to different challenges than those who expatriate into a more structured position. We found similarities in our study with the participants who worked within international schools. These employment situations are structured, and we found that these participants were met with more support in the workplace compared to those who created their own positions internationally.

4.3.2 Internationally Born Athletic Trainers (Int-ATs)

Int-ATs filled a large percentage of our sample. These individuals filled many similar roles to US-ATs in a variety of countries. Many of these participants cited the availability and quality of US based athletic training education as a driving factor to come to the US for their education. Similar to how US-ATs found the international setting was an option through a multitude of ways, Int-ATs found the athletic training profession in a variety of ways. Some knew of the profession of athletic training prior to coming to the US, while others knew of rehabilitative professions but did not know of the specific profession until arriving here. Expatriation for education or for career progression is not an uncommon reason for healthcare expatriation. Dissatisfaction with skills or education offered in home countries was a consistent *motivation* seen in European nurses and doctors across several studies.[11,168] Another factor that these individuals spoke highly of was the desire to learn another language. When providing advice to students who were interested in following in Int-ATs footsteps, many participants spoke not only of the education's strength and benefits, but also the importance of speaking multiple languages. Having the ability to speak additional languages negated potential challenges in future positions. Nurses in Germany reported dissatisfaction in themselves, from patients and coworkers when they were unable to speak the local language.[141] An African nurse went further to describe feelings of prejudice and unkind behaviors towards her due to language barriers.[141] Int-ATs were able to negate some challenges experienced by new healthcare providers in international settings simply because of the skill set of language.

While US-ATs looked internationally for future career opportunities Int-ATs similarly looked internationally, but for education, and were then able to take back a blend of clinical skills

to work settings. The Int-ATs were particularly vocal about *clinical advocacy* and expressed a strong desire to grow the profession of athletic training within their countries, whether it was already somewhat established or completely new. Many were vocal within local governments on creating a new profession or providing licensure for themselves under a new name. Others looked to educational systems to stir up desires for the athletic training profession. Several Int-ATs described creating athletic-training-based classes with the hope of one day creating complete AT education programs. Others not connected to education found challenges being able to return to work in their home countries. Some Int-ATs had to attain additional degrees when they returned because their degree of athletic training was not recognized. This matches physicians and allied healthcare professionals alike who experienced similar difficulties when returning home after expatriating primarily for education.[11,139] The unique standards of practice and modalities taught in education vary depending on country. Without a set *scope of practice* for a specific profession, allied healthcare providers globally were unable to get positions without having to attain additional degrees.[140]

4.3.3 Mutual Recognition Agreement Athletic Trainers (MRA-ATs)

MRA-ATs presented a new perspective on expatriate ATs. These individuals may or may not have spent time practicing as certified ATs within the US but have the credential of a US athletic trainer and the ability to work there. Some *motivations* for pursing this US credential were for added opportunities for future work while others used the MRA to sit for the qualifying exam in another country to expand their ability to practice as a US trained athletic trainer. By having specified *scopes of practice* in sister countries, participants were able to avoid workplace

challenges tied to lack of knowledge surrounding qualifications. As we saw with US-ATs working outside of their home countries, stable *self-efficacy* promotes feelings of inclusion in new settings.[140,149,166,169] When the profession of athletic training was not recognized internationally, this led to lost senses of inclusion and negatively impacted *self-efficacy*.[140,149,166] MRA-ATs however, demonstrated stronger *self-efficacy* in professional settings which could be due to a recognition of the profession throughout their settings.[140,166,169] In this way MRA-ATs more closely resemble corporate supported expatriates rather than self-expatriates in that their credentials are recognized and able to be competitive in traditionally supported work environments.[47,141,169] This further supports clinicians in new environments and encourages long term professional stability.[139,140]

4.3.4 Motivations to Stay

While there were a multitude of pathways taken to obtain employment in an international setting, at the time of our investigation, participants were actively choosing to continue in the international environment. We identified both in *internal motivations* and *external motivations* as factors encouraging clinicians to stay. Participants' pathway was largely influential of their motivations for going and staying abroad. US-ATs followed other self-expatriate literature trends of *internal motivators*, identifying 'wanting a break' from their current positions, improved work-life balances, desires for adventures or challenges, and to follow or move closer to familiar ties. An investigation of motivations for expatriate academic staff moving to China found the same push factors as our study, but additionally found children and a desire to give them new experiences a strong motivator as well.[170] While familial ties were mentioned by our participants,

children were rarely discussed and did not seem to be an influential theme. Another study looking at academic self-initiated expatriates found travel and cultural exploration to be the strongest motivations.[171] Our population also echoed these sentiments of travel and exploration as *external motivators*.

The expatriate literature is much less clear on the specifics behind international clinicians and those who move countries and practice licensing due to mutual recognition agreements between governing bodies. One could argue that they are all forms of self-expatriation which made our findings consistent to what was found above similar for all clinicians. International students in a variety of professions from Eastern countries specifically cited the prestige of US universities as a strong *external motivation* followed by an *internal motivation* to return home for familial or personal reasons.[172,173] This pattern was consistent across Int-ATs in our investigation.

MRA-ATs are a unique group of individuals without matching counterparts within literature. However, these individuals matched much of the self-expatriate motivators. MRA-ATs did display stronger motivation for career advancement when employed abroad compared to UA-ATs. This was seen to be in line with the literature as career advancement was consistently ranked in the top few reasons for self-expatriates to go abroad, but it was not seen as the core motivation for individuals' moves.[170,171] MRA-AT professionals spoke of career advancement and further education as the driving force of their expatriation experiences.

The idea of a boundaryless career and the desire for continually new and challenging experiences by this population could warrant further study on its own. While all motivations are multifactorial, once participants had tastes for the international settings, few expressed disappointments with the setting and therefore motivations to stay were strong. Another motivation to stay lied in the actions many participants were taking to advocate for the profession of athletic

training. This desire to stay additionally drove actions of *clinical advocacy*. Clinicians approached this in a multitude of ways. US-ATs often described collaboration with other health professionals to increase awareness while Int-ATs discussed educational routes such as classes and collegiate programs. Both forms of advocacy are seen with other emerging healthcare professions and approach advocacy through a knowledge-based mindset.[174] Int-ATs and MRA-ATs most commonly spoke of legal advocacy. With previous knowledge of the countries legal system, these professions addressed the lack of scopes of practice and licenses through requests to regulatory bodies and national organizations. While advocacy of a new profession in a country that has not had it is uncommon, participants were adamant that regardless of their pathways to their current positions, it was a setting ready to expand with strong motivations moving forward.

4.4 Professional Support for Expatriate Athletic Trainers

Professional support, the fourth specific aim of our study, was written with individual personal networks in mind. However, researchers found a multitude of aspects pertaining to professional support that assisted participants. Support available to individuals was dependent on the position the professional held, their desire to reach out to others, the country they practiced in, and other factors surrounding clinical work and personal life. The most recurrent theme throughout all aspects of support was connections and relationships. Just as communication was crucial to forming relationships as a personal skill, participants' ability to keep, make, and seek out relationships with other people was pivotal to feeling supported in their setting. These feelings of support or loneliness is echoed throughout expatriate literature with concurring conclusions being

found.[47,141,149,164,169,175,176] Lack of support created a difficult experience while appreciation and social support, from home and new setting was predictive of an easier transition and longer success in an international setting.[47,141,169,175,177]

Intraprofessional relationships, or relationships with home country colleagues, were a point of support for some and difficulty for others. No longer practicing where other ATs are readily available created feelings of loneliness and required independence. While some participants applauded US professionals' efforts to support and include international ATs, others spoke of being out-of-touch with the profession as a whole. Others moved to create their own networks of social support within close regional areas to help begin to close this gap. Social support is a predictor for lower stress, higher job satisfaction, and performance.[140,149] Some participants solved this by creating their own organizations like the Asian Pacific Athletic Trainers Association (APATS) for the three missions of 'keeping children safe while abroad' or clinical aspects, 'committed to learning' or teaching, mentoring and advancing clinical skills, and 'advancing an industry' by promoting international athletic training and supporting each other abroad.[178] Others followed similar trends but created less formal local networks with group-chats to have more international ATs to turn to. All our findings supported Johnson's findings that social ties to fellow expatriates created stronger feelings of social support than connections with local providers for corporate working expatriates.[179] Appreciation from colleagues was found to reduce strain for expatriates. Clinicians from the home country of the expatriate were specifically found to reduce stress and increase transitional smoothness during the transitional period for global healthcare providers.[177]

Another group of relationships highly valued by participants were ones that were based on the institution where they were employed. These work setting connections included administrators,

nonclinical coworkers, coaches, patients, and other staff members. The importance of these *institutional relationships* could not be understated, with daily impacts on social support and acceptance offered to participants, which is also crucial to the success of expatriates.[47,175,180] The ability to keep, advance, or add roles to participant's responsibilities was largely dependent on the type of relationship participants had with institutionally related individuals in this category. Relationships were generally described as congenial and professionally supportive. A few, however, were discussed as combative and uncertain. In these cases, *role incongruity* and a lack of knowledge surrounding the participant's role was often influential as well as cultural expectations causing some differences of opinion. Here again, echoes of frustration concerning *role incongruity* were heard creating additional challenges for our participants as well as other healthcare professionals. Stroppa reported the importance of professional identity and scopes of practices surrounding international healthcare expatriates.[149] This was positively or negatively influential to participants and their relationships to work individuals.[136,140,149,175,181] However, Brown found that healthcare expatriates in Saudi Arabia experienced a range of relationships with work connections, but regardless to the impact on individual self-efficacy, it did not affect clinical work.[140] Amongst our participants, once education about the profession of athletic training occurred with institutional individuals and trust developed over time, positive responses were common and fostered further relationships. This trend highlights the importance of mutual understanding of professional roles.[140,141] MRA-ATs were great examples of the impact that legal recognition agreements can have on the lives of expatriates clinically working.[140]

An interesting development within the study was the finding of resources being impactful to the clinical experience and support professionals perceived in their settings. From financial compensation, patient load, expendable resources, clinical practice spaces, numbers of clinicians

working in one location, and networks for referral, *resources* not only made participants jobs easier or harder but additionally contributed to their feelings of *self-efficacy*. Emphasis on creative and receptive personality traits came back into play depending on the resources they were able to work with.[158] Creativity and willingness to adjust to changing environments made clinical work more functional when resources were scarce.[157] Often moving athletic training facilities demanded a decrease in expendable resources while others found ordering of some supplies, like ACE wraps, was extremely difficult abroad. The necessity for certain resources also varied by country which aligned with other healthcare professions who expatriate. Saudi Arabia allied healthcare expatriates described an inconsistency in the treatment modalities offered in their clinical work from what they had been taught in educational programs which was a barrier for aspects of clinical practice.[140] The adaptation and need to acquire skillsets based within the cultural context of a country's healthcare system became more demanded than basing treatment options only on initial degree education.[182] The more time spent in a setting, the more opportunity to develop the clinical set needed and the understanding of resources provided.[140] While some positions discussed by participants were new and had opportunities to evolve, clinicians who had spent longer time in their settings found blending clinical practice was imperative. These experienced clinicians respected cultural expectations while being the 'spider type' of clinician who takes aspects from all influences to craft their own practice standards.[156] This further decreased desire for additional resources apart from social and institutional support which positively impacted institutional relationships.[149,181] Improved relations create positive self-efficacy and expatriate experiences which is the desired trend across expatriate literature.[47,140,169,182]

Professional support garnered more breadth of conversation and impact than originally anticipated in interviews but proved to be an incredibly influential topic to expatriate ATs. From

physical resources available, to support of fellow ATs abroad and back home, and relationships surrounding work environments, these factors contributed to the success or challenges that clinicians faced. Well-versed in expatriate literature is the understanding that social and work support for clinicians is essential to experience, even more so than what physical *resources* and *professional development* opportunities are available.[6,47,140,141,160,175,177]

4.5 Healthcare Collaboration with Expatriate Athletic Trainers

Just as variant and important as support avenues were to participants, chances for *interprofessional practice* were also found to range a spectrum of strong opportunities. These influential clinical connections were largely based on mutual education and collaboration towards similar goals. While the literature is extremely sparse in the regards to the specifics of how international interprofessional collaboration happens, clinicians in our study found opportunities to collaborate as another support avenue within their jobs. The availability of these chances to collaborate within healthcare was not as accessible to some as it was to others, but those who had the chance spoke of its importance to help *fill the clinical gap* within their medical community and gain better respect amongst clinicians.[136] The most referenced healthcare professionals that our study's clinicians referenced collaborating with were physiotherapists, physicians, nurses, acupuncturists, and Eastern medicine doctors. Like their US-based athletic training counterparts, expatriate clinicians identified that close relationships with other providers in the sports medicine spectrum increased *self-efficacy* in clinical practice.[183] Participants who did not have

interprofessional practice opportunities pointed to *role incongruity* and lack of others' knowledge of their skill sets as their primary barrier.

The *role incongruity* discussed by clinicians was a barrier at first for many participants, but several discussed the ways in which they were able to overcome this gap in more ways than just communication. *Clinical advocacy* within the *intraprofessional practice* realm demonstrated by actions rather than through words. Volunteering efforts on field and within clinics, bringing new skill sets to an already existing positions, and tracking of patient interactions and the financial impact made are just some of the examples of tangible forms of advocacy that participants described. By practicing alongside each other, in addition to discussing their differences and similarities, clinicians can more effectively develop collaborative and integrated interprofessional practice settings.[184] Diversity, both of the professions represented and the individuals in an organization, contributes to culture positivity. This highlights a need future for increased interprofessional clinical practice between expatriate and native clinicians.[185]

The difficulty with this, however, is the majority of research found on *interprofessional practice,* international or domestically focused, is studied in predetermined teams. Working in a predetermined setting, even in a new team, has a common currency for which they can base their interactions and goals for quality human treatment.[186] In our study, many participants are one of the first, if not the first of a new profession in their country. With local clinicians often unaware of the new profession and the skill set that they can provide, a disconnect is already created for expatriating clinicians. This disconnect is heightened when clinicians self-expatriate and do not have the support of an organization to help foster interprofessional practice opportunities, but rather must create all support and clinical networks on their own.[167] Often in these cases, self-expatriated individuals seek employment settings that are better suited to their needs such as

international organizations, or in the case of our investigation, international secondary schools with traditional sport settings.[136]

Creating networks of support for expatriates stepping into established or self-created roles requires individuals to break down stereotypes, concerns, and low tolerances for other healthcare professions to gain others trust and in the longer term, interculture respect.[187] This process was not done quickly or taken lightly by participants in our study but did sometimes come in a lighthearted manner. Our participants as well as other expatriate clinicians describe falling back on clinical common currencies and shared humanistic values for all prospective *interprofessional practice* opportunities.[185,186,188]

Relationships and forms of collaboration were the center of many aspects of the international ATs' clinical work. Whether positive or negative relationships, this greatly contributed to participant's personal *self-efficacy*.[47,140,175,181,183] A similar theme found throughout the different relationships was the amount of knowledge other clinicians knew about the profession led to greater ability to communicate and form more effective relationships. Decreased feelings of *role-incongruity* contribute to higher *self-efficacy* in expatriate clinicians and lead to easier communication and further collaboration.[47,136,140,177] Relationships with a multitude of individuals were discussed by participants both within the clinical setting and personally. While the quality and positivity of these relationships ranged by participant, it was consistent that the many individuals that clinicians interacted with defined their international experience.

4.6 Study Limitations

While our study was specifically designed to minimize any biases or limitations, our study was not without potential limitations. Due to the lack of previous literature surrounding the studied population, our sample recruitment was very broad to gain a greater understanding about the population, however, this could have skewed the studied sample. We did not specify recruitment or separate results by participant's region or the type of international AT that they were, an expatriate, through the MRA, or an international student which could have provided more detailed results. Also, due the nature of qualitative research, only so many interviews could be reasonably be conducted in the timeline for the project. Additionally, in line with the nature of qualitative research participants, while we assume that they speak truthfully about their experiences working in the international setting, self-reporting could be seen as a limitation as well as interviews being conducted in the middle of a global pandemic which could have changed typical perceptions and roles of international athletic training. With the inclusion criteria of individuals having to be currently working abroad, data may be skewed more positively as they are continuing to stay abroad whereas if they did not enjoy the setting, they may have already left. Moreover, while the ability to speak English was a listed inclusion criterion, some participants could not speak as fluently as anticipated which could have resulted in some points not getting across as intended.

4.7 Future Research

Further research is necessary to explore more about the lived clinical experiences of expatriate ATs. Additional research can specify recruitment by region to look deeper into cultural adaptations. Another avenue of recruitment is into the motivations of each type of participant. Literature is lacking investigations of the personality factors and traits of self-expatriating healthcare professionals which is important to understand as this practice setting continues to expand. Clinical work and skills needed abroad, personal motivations, and interprofessional collaboration opportunities, scope of practice, and cultural competence in an international setting are all topics that could be studied with similar populations but more in-depth that would benefit and contribute to the body of literature. While filling in of the literature is certainly a positive effect of continued investigations, these impact the ability for other professionals to adapt. As the world continues to globalize and healthcare becomes more interconnected, more individuals will have exposure to this practice setting. But without further understanding of the clinical challenges and expectations, the participants personal factors, and the skills needed, future clinicians will be at a distinct disadvantage to enter into this field.

Even investigation into individuals who used to but no longer work abroad could add to the body of literature and a differing perspective. Specific research should be done by setting of international ATs whether at international schools or with professional teams or clinics. This sort of investigation could delve deeper into specific clinical adaptations needed for each setting, along with researching how the different types of motivations and personal pathways affect clinical life abroad.

Another population not discussed in this study, but more common in literature and able to provide more insight into the international practice setting are those who do short term international work. This population of ATs who work internationally with a specific sports teams, with the Olympics or other international events, or go on short term trips may encounter different scopes of practice and clinical situations that could provide further guidance to other clinicians who may come across similar situations. The role and effect of gender on the experiences of expatriate healthcare clinicians also has room for further exploration. In many of these avenues, support resources could be produced for these clinicians. Professional organizations, personal mentors, and future individuals moving to this setting are unable to provide resources and assistance to these clinicians if their needs are not properly known. From this wide breadth of lack of previous literature, future research should go in a variety of directions. There are many untouched avenues to international athletic training and sports medicine collaboration that can benefit future clinicians for years to come.

4.8 Study Significance

This novel investigation is the first known study conducted to address the gap in the literature surrounding clinical work of expatriate ATs. Not only is literature surrounding the true clinical work of any healthcare professionals not well investigated, but the literature for ATs working internationally is even more rare. ATs have shown their versatility and skillset is useful in a variety of settings and have a place among the international healthcare clinicians' conversation but demonstrating this in the literature is incredibly important. This study took a large lens to

examine the world of international athletic training that has been around for many years to create a baseline understanding of information for this clinical setting and further the conversation within clinical literature.

4.9 Conclusion

The results of our investigation indicate that the international practice setting is a strong and vibrant practice setting for ATs. Expatriate clinicians work in a wide variety of countries and practice settings. These individuals developed clinical adaptations to blend their credentials and clinical skills with cultural expectations as one of many examples of *cultural competency*. Participants identified strong communication skills and *relationships* with local healthcare clinicians, institution related personnel, and other ATs both international and back in the US as the cornerstones to international practice. Difficulties arose with lack of social support, lack of knowledge surrounding the athletic training profession and skill set, and the lack of set scopes of practice.

However, these gray areas provided clinicians with opportunities to advocate for the profession and the specific skill set. The lack of formal scopes of practice provided clinicians opportunities to identify clinical gaps within their healthcare networks. Employers found increased value from clinicians when they filled clinical gaps. However, this gray area also created challenges for participants as many other local healthcare professionals, and even patients, did not know what clinicians' abilities and trainings were.

Clinicians came from a range of backgrounds including Exp-ATs, Int-ATs, and MRA-ATs. Expendable resources varied from setting to setting as did personal support, which largely contributed to the connection participants felt to their positions and success. Lower levels of support in the work setting were consistently seen with role incongruity causing additional difficulties for clinicians.

Overall, participants described many challenges but also immense pride surrounding the work they were doing. They explained how their positions met unique needs in their medical settings and how they hoped to further the international setting of athletic training abroad to meet these. Despite overcoming a range of difficulties, athletic training expatriates have not only shown that their skill set fits a unique need abroad, but also that interprofessional collaboration amongst similar healthcare professionals has a strong and viable future. These individuals have shown and continually expressed that the profession of athletic training has the ability to not only contribute, but grow to the global sports medicine conversation in a unique way.

Appendix A Standardized Recruitment Email

Recruitment: Lived Clinical Experiences of Expatriate Athletic Trainers

Emily Mulkey <email-service@bocatc.org>

Tue 8/4/2020 2:00 AM

To: Mulkey, Emily K <EKM42@pitt.edu>

Dear Emily,

My name is Emily Mulkey, and I am a graduate student at the University of Pittsburgh. I would like to invite you to participate in my research study: **The Lived Clinical Experiences of United States Expatriate Athletic Trainers**. The purpose of this study is to investigate the clinical experiences and work adaptations of expatriate United States (US) credentialed athletic trainers. This study is being conducted by Ms. Emily Mulkey, a University of Pittsburgh Masters of Science student and Mary Murray, EdD, MS, LAT, ATC.

Participants will be asked to complete an online survey (5-10 minutes) followed by a later-date, scheduled, approximately 30-minute phone interview over Zoom Conferencing Systems to ensure no international fees are incurred.

All US credentialed athletic trainers (those certified, licensed, or legally able to practice athletic training) who are currently working clinically in a country outside of the US are welcomed to participate. The University of Pittsburgh Institutional Review Board has approved this study for the protection of human subjects and all materials and safeguards of data are compliant with the General Data Protection Regulation (GDPR).

Study participation is completely voluntary and participant information will be protected, kept strictly confidential, and used only by the research analysis team. Within 15 days of the interview, participants have the right to access their data, restrict processing of their data, object participation, and to withdraw from the study by contacting one of the co-principle investigators.

As a certified athletic trainer working clinically in the international setting your views and experiences are invaluable to the future of this field. Thank you in advance for your participation and please pass this email along to any other athletic trainers who may be eligible.

Please click the link below to complete the questionnaire and schedule a time for an interview.

https://pitt.co1.qualtrics.com/jfe/form/SV_3KIwVbmQXtcEdJH

The co-principle investigators, are Dr. Mary Murray, the Co-Director of the MS Program in Sports Medicine at the University of Pittsburgh and Ms. Emily Mulkey, Masters of Science applicant. Dr. Murray can be reached via phone, (412) 624-0278, email: mmuray1@pitt.edu. and postal:

University of Pittsburgh
5065B Forbes Tower
Pittsburgh, PA 15260

If there are any general questions/comments/or concerns or questions regarding your participation in this study, please contact Ms. Emily Mulkey via email: ekm42@pitt.edu.

Thank you for your time and consideration,

Emily K. Mulkey, LAT, ATC

Appendix B Qualtrics Demographic Survey

Mulkey Thesis Survey Questions – Qualtrics.com

1. Are you currently a United States credentialed athletic trainer (including BOC certified, state licensed, or credentialed as an athletic trainer) to practice within the United States and currenting working in a country outside of the United States?

- **Yes** – continues to the next question
- **No** – sent to a thank you for your willingness but you do not qualify for the study screen

2. Do you perform duties similar to a United States athletic trainer in your daily work abroad or do you regularly perform duties related to one or more of the following athletic training domains:

    Injury and illness prevention and wellness promotion
    Examination, Assessment, and Diagnosis of Injuries
    Immediate and Emergency Care to Patients
    Therapeutic Intervention
    Healthcare Administration and Professional Responsibility

    - **Yes** – continues to the written consent screen
    - **No** – sent to a thank you for your willingness but you do not qualify for the study screen

3. Consent to Act as a Participant in a Research Study:

    Study Title: The Lived Clinical Experiences of United States Expatriate Athletic Trainers

    The purpose of this research study, "The Lived Clinical Experiences of United States Expatriate Athletic Trainers", is to investigate the clinical experiences and work adaptations of expatriate United States (US) credentialed athletic trainers. This study is being conducted by Ms. Emily Mulkey, the principle investigator and a University of Pittsburgh Masters of Science student and Dr. Mary Murray, Co-Director of the Masters of Science in Sports Medicine Program.

    For that reason, we will be asking athletic trainers trained and certified in the US who are currently working in another country to complete a brief (approximately 5-10 minute) survey followed by a scheduled, later-date, approximately 30-minute interview audio phone call using Zoom Conference Systems to not incur international fees.

    If you are willing to participate, our questionnaire will ask about your current job position (e.g., setting of work, additional certifications, employer name, location of job), history

as an athletic trainer (number of years certified, age, position title, numbers of years working internationally), and to select a time for a phone interview.
Some reasons you might want to participate in this research are to help improve our understanding of the international practice setting for United States athletic trainers and to understand your lived clinical experiences.

Your participation in this study is voluntary. We will ask you to give electronic consent at the beginning of the survey. You are free to decline to answer any particular question you do not wish to answer for any reason. If you want to stop the interview or withdraw from participating, you can at any time by asking the principal investigator to stop. We will ask to confirm with you that you want to stop when you ask and we will eliminate your responses to the interview from data analysis. If you want to withdraw your interview response, we ask you do so within 15 days of the interview so that we do not begin data analysis with your information included. All responses are confidential. Due to collecting identifiable information, there is a potential for breach of confidentiality, but very effort will be made to protect your confidentiality in the following ways:

- Storing audio files with a pseudonym (fake name) in the file name on a password protected cloud storage platform
- Only the principal investigator will have access to identifiable data. All other data seen by data analysis team members will be de-identified and unable to be traced back to participants.
- Transcribed files will be de-identified, removing any identifiers that would allow someone to recognize you
- If you choose to withdraw from the study, the principal investigator will erase all of your data immediately, if we are contacted within 15 days of your interview
- Deleting all study participant files after 7 years following final reporting or publication of the project per the University of Pittsburgh IRB policy
- All data is stored behind duo-authentication passwords within secured, University-managed OneDrive files. De-identified data is only shared with data analysis team members and shared within OneDrive to minimize data transfer.
- Should the data be published, no individual information will be disclosed

Anytime during the research process from this consent to within 15 days of the interview, participants have the right to access their data, restrict processing of their data, object participation, and to withdraw from the study by contacting one of the co-co-principal investigators. Following the 15 days, all participant information will not be able to be identified. If the principal investigator is contacted within 15 days after the interview and asked to remove participant data, the data will be extracted from the data set and eliminated from analysis.

Although the study team does not currently have a data sharing plan, should the team decide to share data in the future, they will contact the Office of Sponsored Programs before sharing de-identified research data/materials to determine whether an agreement needs to be executed. All data will be analyzed by individuals and no automatic processes or profiling will be done. All data collected throughout this study is solely for the purpose of the investigation stated above; if the principal investigator chooses to use this data set for further research from this data set, participants will be contacted for additional consent.

The study's co-co-principal investigators are Dr. Mary Murray and Ms. Emily Mulkey, who can be reached for questions or concerns at mmurray@pitt.edu and 412.624.0278 or ekm42@pitt.edu respectively. If you have any questions about your rights as a research subject or wish to talk to someone other the research team, please call the University of Pittsburgh Human Subjects Protection Advocate toll-free at 866-212-2668.

Date of IRB exemption: July 21, 2020
IRB Number: STUDY20060304

- **Yes,** I give consent to participate in this research study. I understand the objectives, what is required of my participation, the protection of my information, and the rights I have to my data as a participant.
- **No,** I do not give consent.

4. Full Name: *Fill in the blank*

5. Email Address: *Fill in the blank*

6. Age: *Numeric select*

7. Gender: (Male, Female, Transgender or non-binary, prefer not to say, prefer to self-describe) *Single select*

8. How many years to the nearest year have you been a credentialed Athletic Trainer? *Numeric select*

9. How many years to the nearest year have you been working in the international setting? *Numeric select*

10. Other Certifications: (List all that apply) (Masters, DPT, CSCS, CPT, IASTM, ACSM, EMT, CPT, Graston, etc.) *Fill in the blank*

11. Country of Practice: *Fill in the blank*

12. Job Position Title: *Fill in the blank*

13. Job Setting: [Select all that apply] *Multiple select*
    - Athletics – Professional or adult level
    - Athletics – Collegiate
    - Athletics – Secondary School
    - Clinic – Rehabilitation
    - Clinic – Physician
    - Health Setting – Industrial
    - Health Setting – First Responders
    - Health Setting – Military
    - Health Setting – Performing Arts
    - Education – Teaching
    - Education – Administration
    - Other – *Fill in the blank*

14. If you know of someone who would fit this study criteria and be interested in participating, please list their name and email for participant recruitment.

Appendix C Standardized Participant Confirmation Email

Lived Clinical Experiences of Expatriate Athletic Trainers

Mulkey, Emily K <EKM42@pitt.edu>
Tue 8/4/2020 10:37 PM
To:

This is Ms. Emily Mulkey of the University of Pittsburgh. Thank you so much for your desired participation in our research study, The Lived Clinical Experiences of Expatriate Athletic Trainers! We so look forward to hearing about your time working as an athletic trainer abroad and learning from your invaluable experiences. Following this is the Doodlepool link to choose your interview time: https://doodle.com/poll/dfbv33yrymkdryvr

The link automatically changes to your time zone so do not worry about conversions, just select the time that is best for you. The interview should take approximately 30 minutes, but time slots are for one hour to allow for set up and if the interview should go long. I will email you your individual Zoom link and password shortly after you choose a time on the poll. Also, please send the recruitment email you received along to any colleagues you may know in your area, that would be a huge help!

Thank you again for your expressed interest and I look forward to talking soon.

All the best,

Emily K. Mulkey, LAT, ATC

Emily K. Mulkey, LAT, ATC | Athletic Trainer
University of Pittsburgh | Petersen Events Center
E: ekm42@pitt.edu | C: 412.477.4580
@Pitt_SportsMed PittsburghPanthers.com

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