RESEARCH ARTICLE

Japanese international student-athletes’ adjustment experience at the National Collegiate Athletic Association

[version 1; peer review: awaiting peer review]

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Abstract

Currently, the number of International-Student Athletes (ISAs) in the National Collegiate Athletic Association (NCAA) is increasing over time and Japan is the biggest market for recruiting in Asia. Whereas international students are playing an increasingly important role in the NCAA, several studies have reported that ISAs face challenges in adjusting to their dual identities as students and athletes at universities in the US. Furthermore, it has been cleared Asian students studying at US universities have some challenges because of cultural and linguistic differences. However, it remains unclear whether the difficulties experienced by Japanese ISAs are the same as or different to the adjustment-related challenges experienced by other ISAs or Asian students. The purpose of this study is to clarify challenges for ISAs from Japan in adjusting to the United States’ universities. Situating in the ISA adjustment model and using a unique case study design, 13 Japanese ISAs at the NCAA Division I universities were interviewed, and data were coded by a continuous comparative analysis method. The results revealed that Japanese ISAs who participated in this study faced academic, social, athletic, personal-emotional, and institutional adjustment challenges. Particularly, Japanese ISAs differed from ISAs from other countries in several points; cultural differences, differences in communication styles, and systemic differences in academia and athletics between Japan and the US. For promoting adjustment of Japanese ISAs, this study suggests; gaining experience and getting information to understand and familiarize with the differences, building relationships with linguistic and culturally diverse people to understand various cultures, encouraging universities and coaches to understand specific

Open Peer Review

Approval Status  AWAITING PEER REVIEW

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difficulties for Japanese ISAs.

**Keywords**
Inter-collegiate athletics, Cross-cultural adjustment, Cultural transition, Cultural adaptation, Academic sojourner, Mental health

This article is included in the Japan Institutional Gateway gateway.

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**Author roles:** Matsuo H: Conceptualization, Data Curation, Formal Analysis, Funding Acquisition, Investigation, Methodology, Project Administration, Validation, Writing – Original Draft Preparation; Tsukamoto T: Conceptualization, Data Curation, Funding Acquisition, Investigation, Validation, Writing – Review & Editing; Kasahara H: Data Curation, Validation, Writing – Review & Editing; Funasaki K: Validation, Writing – Review & Editing; Sakamoto R: Validation, Writing – Review & Editing; Fujino M: Conceptualization, Data Curation, Writing – Review & Editing

**Competing interests:** Second Place Inc., which is run by co-author Mr. Fujino, is considering a project to support Japanese student athletes studying abroad at NCAA member institutions and may develop services based on the results of this research.

**Grant information:** This study was conducted as part of a collaborative research project funded by Second Place Inc. The project's name is “the identification of issues for Japanese student-athletes studying abroad and the development of a “global sports education program” for junior high school and high school students (CRI03037).

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**How to cite this article:** Matsuo H, Tsukamoto T, Kasahara H et al. Japanese international student-athletes' adjustment experience at the National Collegiate Athletic Association [version 1; peer review: awaiting peer review] F1000Research 2022, 11:1455 https://doi.org/10.12688/f1000research.124788.1

First published: 08 Dec 2022, 11:1455 https://doi.org/10.12688/f1000research.124788.1
**Introduction**

One of the main activities of university coaches in the United States (US) is recruiting students, and the talent they acquire often determines the success or failure of their teams. Many coaches, especially at the Division I (DI) level in the National Collegiate Athletic Association (NCAA), are required to find talented athletes in a wide range of regions. Therefore, the proportion of their total budgets spent on recruitment is reported to be increasing over time (Judson et al., 2004; Sander, 2008). In addition, international students are playing an increasingly important role in the NCAA because of the growing trend to recruit student-athletes from outside the US (Drape, 2006). US universities recruit student-athletes globally because the number of international student-athletes (ISAs) is increasing over time. ISAs are international students from other countries who play sports on university varsity teams as student-athletes.

A total of 17,653 ISAs were reported to have participated in the NCAA in 2009–2010, which is a significant increase from just under 6,000 a decade earlier (Erin et al., 2010). In 2021, 21,334 ISAs played in the NCAA, indicating a further increase over the past decade (NCAA, 2021). The number of ISAs in DI in 2021 was 1.55 times higher than the number in 2012 (NCAA, 2021), suggesting that coaches will continue to consider ISAs as an essential component of their teams in the future. The following countries have more than doubled the number of ISAs playing in the NCAA since 2015, and had 100 or more ISAs in 2021: Italy, Portugal, the Netherlands, Iceland, and Greece in Europe; Argentina in South America; Kenya and Tanzania in Africa; and Japan in Asia (NCAA, 2021). These factors suggest that Japan is an important market when considering the recruitment of talented student-athletes from Asia.

However, several studies have reported that ISAs face challenges in adjusting to their dual identities as students and athletes at US universities (Ridinger and Pastore, 2000a; Sato & Hodge, 2009; Popp et al., 2010; Pierce et al., 2011). In addition, it has been reported that the challenges faced by Asian students studying at US universities include academic, social, and language difficulties caused by cultural and linguistic differences (Sato & Hodge, 2009). Sato and Hodge (2015) reported that Japanese students studying at US universities experienced academic and social difficulties that were created and exacerbated by cultural and language differences, collectivist social patterns, and negative experiences with professors and other students. However, it remains unclear whether the difficulties experienced by Japanese ISAs are the same or different to the adjustment-related challenges experienced by other ISAs. Thus, university coaches may be unaware of Japanese ISA-specific challenges when recruiting ISAs from Japan. Therefore, the current study aimed to elucidate this situation for ISAs from Japan, which is likely to become an increasingly critical recruiting market for US universities in the future, by identifying the challenges of university adjustment among Japanese ISAs. To address this issue, the study focused on the following research question: What challenges are faced by Japanese ISA in adjustment to a US university?

**Literature review**

**ISA adjustment experience**

It has been suggested that the adjustment process of ISAs differs from that of other international students (Ridinger, 1998). Popp et al. (2009) investigated international and domestic student athletes’ adjustment to US universities and their differing views regarding the purpose of college sports. The results revealed that international students were less socially adjusted and less likely to belong to an organization than domestic students. Although the literature on ISA experiences at US universities is mixed, with both positive and negative findings (Connell, 2007), many studies have shown that ISAs face academic and social difficulties at US universities. In particular, ISAs whose native language is not English may struggle to meet the NCAA’s academic eligibility requirements (Connell, 2007).

Pierce et al. (2011) expanded on Ridinger and Pastore’s (2000b) preliminary study of ISAs to examine the most significant challenges faced in the first year of college by surveying a diverse population. In that study, 355 student-athletes from 15 NCAA Division I schools responded to the survey, 192 of which were from countries other than the US. The results revealed that homesickness, adjustment to US culture, and language were the three most common concerns of ISAs (Ridinger & Pastore, 2000b). Andrade (2005) examined the transitional issues unique to international students during their first year at a US university. Many of the challenges faced by international students are related to adjusting to a new environment, leaving home for the first time, developing effective study habits, and choosing a major. While some of these overlap with domestic students from the US, these potential challenges are magnified by language barriers and cultural differences for international students. Cômeaux and Harrison (2011) reported that striking the right balance between academic and athletic life can be challenging for student-athletes in transition, who must constantly negotiate the dual roles of student and athlete. They suggest that these competing roles, coupled with time demands, can interfere with academic and athletic performance.

**Theoretical framework**

Before proceeding with the theoretical framework, we define cross-cultural adjustment. Palthe (2004) defines cross-cultural adjustment as “the process of adaptation to living and working in a foreign culture.” Furthermore, adjustment
includes the degree of comfort and familiarity that is perceived by migrants in the new country (Black et al., 1999). Because the theme of the current study was the adjustment of Japanese ISAs to US universities, we used the ISA adjustment model developed by Ridinger and Pastore (2000a) and extended by Popp et al. (2010) as the basis for our study. Ridinger and Pastore (2000b) investigated the adjustment of ISAs and general international students to US universities and found that ISA students were better adapted to their new environment compared with the general population of international students.

Ridinger and Pastore (2000a) developed the ISA adjustment model that has included (a) antecedent of adjustment, (b) adjustment task, and (c) outcome. (a) The antecedent of adjustment is personal, perceptual, cultural distance, and interpersonal factors. The four factors directly influence the (c) ISA outcomes (i.e., satisfaction, academic performance, and athletic performance). These antecedents and outcomes relationships are influenced by (b) adjustment tasks (i.e., academic, social, athletic, personal-emotional, and institutional attachment).

Previous studies examined the detail of four antecedent factors. Ridinger and Pastore (2000a) identified “self-efficacy” and “technical competencies” (e.g., athletic, academic, and English language skills) as personal factors of ISAs. Furthermore, Popp et al. (2010) added “travel experience” and “adventure” as personal factors. Perceptual factors included ISA’s “realistic expectations” regarding both their chosen college and athletic discipline, as well as the material and psychological “social support” provided by the college and athletic departments, while “family influence” was added by Popp et al. (2010). Cultural distance refers to differences between the indigenous culture of the ISA and campus culture, including physical and geographic distance and social and customary differences. Finally, in terms of interpersonal factors, ISAs reported that good relationships with “teammates,” “coaches,” and “faculty and staff” promote adjustment (Popp et al., 2010). However, Popp et al. (2010) reported that relationships with “faculty and staff” did not promote adjustment in ISAs.

This theoretical framework describes the unique adjustment challenges of ISAs from different social and cultural backgrounds and the factors that influence their adjustment. Because academic, social, athletic, personal-emotional, and institutional attachments are expected to be experienced regardless of ISAs’ country of origin, it is possible to apply the same framework to Japanese ISAs. However, Japanese students have great difficulty with cultural and language differences, collectivist tendencies, negative experiences with professors and other students, and building social relationships with white students. This tendency may have led to differences in their adjustment experiences with the ISA. Therefore, this study adds to the literature related to the adjustment experience among ISAs and provides essential insights into the adjustment of Japanese ISAs to decision-makers, including the Japanese ISA community and universities, while filling a gap in the literature.

**Methods**

**Research design**

This study used a unique case study design (Yin, 2003) focusing on the challenges faced by Japanese ISAs in adapting to a US university, and a single case study (Patton, 2002). The purpose of a case study is to better understand a complex educational and social phenomenon, while at the same time retaining meaningful specificity in a real-world context (Yin, 2003).

**Sampling**

Purposeful sampling (Patton, 2002) was chosen for this study to gather a wealth of information regarding the research question. The selection of participants for the case study was conducted by contacting student-athletes who met the selection criteria for inclusion and directly inviting them to participate in the study. Because of the limited number of Japanese ISAs in DI at the NCAA who were eligible, we followed the findings of Guest et al. (2006) and aimed to recruit a minimum of 12 participants. The target group consisted of 13 individuals (six males and seven females) who met the following selection criteria and volunteered to participate in the study: (1) Japanese citizenship, (2) Japanese primary and secondary education, and (3) at least 1 year of experience as an ISA in the NCAA’s DI program. These participants had received Japanese education from childhood. All participants were considered to have experienced the adjustment issues described by Connell (2007) and Comeaux and Harrison (2011) when they entered US universities.

**Participants**

The participants were 13 Japanese ISAs who volunteered for the study. There were no minors among the subjects. All participants were adults who have Japanese nationality. Nine enrolled in college during the study period, and four had already graduated. Six were male, and seven were female. Four played soccer, three played golf, two played American football, two played ice hockey, one played basketball, and one played tennis.
Ethical approval and consent
The authors were accepted to conduct this study from the institutional ethics committee of the University of Tsukuba (Tai 021-82). Many of the subjects were living in the U.S., and it was difficult to receive their signatures in writing in person due to the geographical distance from Japan, where the researchers are located, and the restrictions on travel caused by the COVID-19 pandemic. Therefore, we retain the video recording of the verbal consent and the documentation of the content and date of the informed consent. This informed consent process was approved by the ethics committee of the university.

Data collection
The data collection method consisted of face-to-face semi-structured interviews with each participant to obtain information about the challenges they faced in adjusting to college as Japanese ISAs. The research ethics committee at the University of Tsukuba approved the study before the interviews were conducted.

Semi-structured interviews
Each participant was interviewed using a semi-structured interview technique (Yin, 2003). Specifically, we used an interview guide consisting of 17 questions about the challenges the participants experienced in adjusting to college as Japanese ISAs. The questions primarily asked about experiences related to academic, social, athletic, personal-emotional and school institutional adjustment in college. The questions were developed on the basis of previous research (Ridinger & Pastore, 2000a; Popp et al., 2010). Participants were interviewed using an online conferencing system, and interviews typically lasted 60 to 90 minutes. Interviews were conducted for each participant between July 2 and July 16, 2021. As needed, follow-up questions to clarify participants’ comments were asked by phone (Shuy, 2002) or email (Meho, 2006). After this process, the researcher transcribed the interviews, returned the transcribed data to all participants, and conducted member checks (Lincoln & Guba, 1985; Patton, 2002) via email (Meho, 2006). This process ensured that the transcribed data accurately represented the participants’ views and experiences of adjusting to college. The full interview guide in Japanese can be found in the Extended data (Matsuo et al., 2022). Table 1 is the list of the questions under which the themes arose.

Table 1. List of questions.

<table>
<thead>
<tr>
<th>Process of enrollment</th>
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<tbody>
<tr>
<td>1 Why you chose the university you are affiliated with?</td>
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<td>2 How did you get admitted to the university you are affiliated with?</td>
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<td>3 For what purpose did you enroll in the university you are affiliated with?</td>
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<td>4 What were the challenges you faced in the process of selecting and enrolling in your university?</td>
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<tr>
<th>Challenges faced in the process of adjustment and their causes</th>
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<tr>
<td>1 What were the academic challenges you faced in the process of adjusting to your university?</td>
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<td>2 What do you think are the causes of the academic adjustment challenges you faced? How do you think you could have solved those challenges?</td>
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<tr>
<td>3 What were the social challenges you faced in the process of adjusting to your university?</td>
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<tr>
<td>4 What do you think are the causes of the social adjustment challenges you faced? And how do you think you could have solved those challenges?</td>
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<tr>
<td>5 What were the athletic challenges you faced in the process of adjusting to your university?</td>
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<tr>
<td>6 What do you think are the causes of the athletic adjustment challenges you faced? And how do you think you could have resolved those challenges?</td>
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<tr>
<td>7 What were the personal-emotional challenges you faced in the process of adjusting to your university?</td>
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<tr>
<td>8 What do you think are the causes of the personal-emotional adjustment challenges you faced? And how do you think you could have resolved those challenges?</td>
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<tr>
<td>9 What were the institutional attachment challenges you faced in the process of adjusting to your university regarding the school system and culture?</td>
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<tr>
<td>10 What do you think are the causes of the institutional attachment challenges you faced regarding the school system? And how do you think those challenges could have been resolved?</td>
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<tr>
<th>Outcomes of study abroad experience</th>
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<tr>
<td>1 How satisfied are you with your experience at your university and why?</td>
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<tr>
<td>2 How would you rate your academic performance at your university and why?</td>
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<tr>
<td>3 How would you rate your own athletic performance at your university and why?</td>
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Trustworthiness and data analysis

The purpose of triangulation is to assess the accuracy of the data rather than to seek universal truths (Merriam, 1998). Triangulation used multiple perspectives, including data from interviews, which were interpreted through the ISA’s adaptive model lens. Member checks were conducted to mitigate the effects of subjective bias (Patton, 2002), and copies of the transcribed interview data were emailed to individual participants. Participants confirmed the accuracy of the data and the researcher’s interpretation of the data to ensure that reliability had been established (Merriam, 1998).

Peer debriefing was conducted by two qualitative researchers with expertise and experience in this area, who determined that the interpretation of the data was accurate and representative of the participants’ statements. A continuous comparative analysis method (Klapwijk & Boeije, 2010) was used to interpret the data, enabling a comparison of different pieces of data in detail. Specifically, the first and second authors independently coded potentially meaningful data from each participant’s interview transcript. Any differences were discussed until consensus was reached. Two additional peer debriefers then checked the codes to avoid researcher bias. The coded data from each participant’s records were compared to identify similarities and differences. All data and keyword definitions were returned to participants for a second member check. After receiving final confirmation from all participants, the researcher grouped the codes into thematic categories, then narrowed them down into recurring themes (Klapwijk & Boeije, 2010).

Results

Five major themes emerged from the data that corresponded to and were interrelated with the themes reported by Popp et al. (2010): (a) academic adjustment challenges, (b) social adjustment challenges, (c) athletic adjustment challenges, (d) personal-emotional adjustment challenges, and (e) institutional attachment challenges. These themes are described below in narrative form, with quotes from participants.

Theme 1: Challenges of academic adjustment

This theme represents participants’ difficulties with academic adjustment related to coursework, classes, and assignments. Ten participants experienced language barriers related to their academic work and had difficulty understanding the course content in English and speaking in class. For example, Kusanagi explained that. The findings are reported using pseudonyms to disguise the identities of participants.

When I went to class, I did not know what the professor was talking about. Then, after the class was over, there was an assignment for each class, but I didn’t know what the assignment was. If I couldn’t do the assignment, I wouldn’t get any points for that class, and my grades would drop. I had a lot of trouble with that in the first year.

Kusanagi reported that his English skills were not good enough to understand what the professor said in class, or to comprehend the assignments. He had difficulty coping with classes and assignments in an unfamiliar language. Another participant, Nagase, described her difficulties with speaking English in class. She stated that she lacked confidence in her English because she was not a native speaker, which acted as a psychological barrier and made her hesitant to speak up.

I couldn’t keep up with the discussion because of the fast pace at which everyone was speaking, and because I wasn’t sure if what I was doing was correct. So, I wasn’t confident enough to say what I was doing. I guess the problem was less about the content of the discussion.

Nagase had particular difficulty participating in group discussions and seemed unable to speak her mind with confidence. Furthermore, four of the participants mentioned cultural differences in terms of academic studies. For example, Ohishi was perplexed by the difference between the teaching style at the US university and that in Japanese school classes.

I think the content and style of classes are quite different (from Japan), aren’t they? It depends on the class, but in my first year, about half of the classes were in large classrooms and half were in small groups, and there were difficulties in both types of classes. In smaller classes, there was inevitably more communication and more group discussions. It was difficult for me to participate actively in those situations.

After years of experience with the one-way lecture teaching style in Japan, Ohishi noted that he had difficulty adapting to the small-group, discussion-based teaching style at the US university.

Theme 2: Challenges of social adjustment

This theme represents participants’ difficulties in social adjustment in building relationships. In particular, nine participants were confronted with social and cultural differences, and experienced difficulties regarding differences in background experiences, perceptions, and communication styles. For example, Sugimoto explains.

When I went to class, I did not know what the professor was talking about. Then, after the class was over, there was an assignment for each class, but I didn’t know what the assignment was. If I couldn’t do the assignment, I wouldn’t get any points for that class, and my grades would drop. I had a lot of trouble with that in the first year.
The biggest challenge I faced was cultural differences. My teammates were from eight different countries, so each of us had a different culture and lifestyle, and it took me a long time to understand them. To be more specific, the way we studied was different. Japanese people are serious and do their assignments three days to a week in advance, but some other student-athletes have the option of not doing their assignments.

Sugimoto stated that cultural differences were the biggest challenge she faced. She felt bewildered by the differences from Japanese customs and mindset when building relationships with teammates from diverse backgrounds. Moreover, she felt stressed by this gap. In contrast, Matayoshi reported that differences in communication styles were challenging to adapt to.

Japanese people, I think, are very considerate. Even if they do not say everything that is on their mind, they can read the mood of the situation. But with Americans, for example, if you do not express your opinion, they take that to mean that you don’t think about anything. So, I have to express my opinion.

Matayoshi found it challenging to transition from the Japanese-specific communication style he had experienced during his life in Japan to the frank, opinionated communication style required in the US. In addition, the fact that they could not communicate everything they wanted to say in English made communication even more difficult. In addition, seven of the participants mentioned building relationships. For example, Nagase, as a racial minority on the team, felt uncomfortable in his relationships with his teammates.

There are differences between people of different races, and, to be honest, ice hockey is a white sport. So when you have a different culture and a different language, there is no one on the team that I have things in common with.

I was pretty confused at first because I felt like there was no one I could understand, even though I was in the same place every day.

Nagase described his experience on a predominantly white ice hockey team. She had difficulty socially adjusting because of the lack of teammates with similar cultural backgrounds. As a result, they had difficulty building mutual understanding and respectful relationships. In addition, Yazawa mentioned building relationships with coaches.

My relationship with the coaches was good. I communicated with the coach, so I had a good relationship with him, and the head coach was a very kind person who talked to me a lot. The only thing is, the scouting team coach seemed to hate Asians, so I was pretty much ignored at the beginning of the season when I started working with the scouting team.

Yazawa had a good relationship with his coaches while playing as an American football team member. However, he had experienced being ignored by specific coaches who discriminated against Asians, and he described his experience of being exposed to cultural bias. Five of the participants also mentioned difficulties related to the social language barrier. For example, Yokota explained.

Students tend to use the latest slang, as in Japan. So when I came here, I thought, “What? I have never heard of that word, and it’s not even in the dictionary. They don’t teach you that at school.”

Yokota seemed to have difficulty conversing with young people because of the slang they used. Because she had not learned this language in Japan or at language schools, she was confused when slang was used in everyday conversation and she could not understand it.

Theme 3: Challenges of competitive adjustment

This theme represented difficulties with competitive performance, relationships, and competitive adjustments related to conditioning, such as diet and injuries. Eleven participants mentioned their on-field performance, including gaining playing opportunities, gaps in physique and athletic ability, and tactical adjustments. For example, Nagase discussed gaining playing opportunities as follows.

To be honest, I did not play many games in my junior year. I was on the bench all the time. In terms of playing time, there were times when I did not play in a single game, even in my third year, and, on the other hand, there were times when I played all the time consistently.

Nagase seemed to have a hard time with this situation, not only immediately after entering the university, but always needing to compete within the team to win playing opportunities. Inoue also described the gap in physical size and athletic ability as follows.
My body is small, to begin with. I am of average height for a Japanese person, but I have a skinny frame. When I went to the US, I felt that the physicality was different.

I started to think with my head a lot more, and I became able to read, predict, and think about the game. Eventually, it worked to some extent. Compared with the first year, now I can play soccer the way I want to play.

Inoue felt a gap between her physique and athletic ability, which were acceptable when she played in Japan, and those of players in the US. She attempted to adapt to this gap by training her physique and improving her play prediction ability. As a result, she has been able to play successfully in the NCAA. Furthermore, four participants mentioned diet, including diet quality and access to Japanese food, in relation to their competitive adjustment. For example, Nagase stated that.

The food is not very good. It is not good in terms of taste, and in terms of eating a proper balance of food that suits one’s body. It is a dormitory, so you can eat what you like in a buffet style. Although I tried to take care of myself, there were times when I gained weight or gained more than I should have. I think it’s one of the most challenging aspects of the program.

Nagase was not satisfied with the quality of the food provided in the university dormitory and was not eating the kind of food he wanted. Participants who mentioned diet seemed to relate it to athletic adjustments based on their perceived diet as necessary for athletic performance.

Theme 4: Challenges of personal emotional adjustment

This theme represented difficulties with personal emotional adjustment, and factors related to climate that affect psychological and emotional states. Eight participants mentioned changes in their psychological state, including homesickness, lack of motivation, and loneliness. For example, Sugimoto described homesickness in the following way.

The first was homesickness. It was the first time I had lived away from my family for an extended period, so I was homesick. I think the stress of cultural differences also caused homesickness.

Sugimoto seemed to feel homesick because of the stress caused by cultural differences and living away from his parents for the first time when he enrolled in a US university. In addition, Ohishi described a loss of motivation.

I felt that if I did not do well in soccer, my motivation for the entire study abroad program and classes would decrease.

Ohishi felt that soccer was the one sport where he could express himself as a student-athlete. If he did not do well in that sport, it would be difficult to maintain motivation for his entire college life and academic work. In addition, Ando described his sense of loneliness as follows.

At first it was hard to accept that my teammates’ parents could come to watch the golf matches, but mine could not.

Data felt lonely because she was far away from her parents and, like her teammates, her parents could not come to support her in her golf game. This situation occurred because of the geographical distance from Japan, and she had to accept an environment in which she could not receive the support of her parents. Five participants also mentioned the climate, including cold and inclement weather. For example, Nagase described how cold weather was related to personal emotional adjustment.

It is also cold and dark, especially in winter. So I felt very depressed, especially in winter. Moreover, the weather is not good. In winter, the sun rises late and sets early, so if it snows or the sky is dark, you feel cold, and everyone, not just international students, says that it makes them a little depressed.

Nagase described the region’s climate where he attends his university as often being depressing, especially in the winter, with low temperatures and a lot of snow. He also mentioned that this feeling was not limited to international students. Thus, adjustment to the climate appeared to be necessary for ISAs depending on their locations.

Theme 5: Challenges of institutional attachment

This theme represented difficulties with school institutional adjustments related to NCAA rules and university systems. Five participants mentioned NCAA rules, including training volume, frequency, and eligibility. For example, Yazawa discussed training volume and frequency as follows.
NCAA rules limit the number of days you can practice football. There are only about 30 days in the spring season in the spring, and in the fall, you can only practice in August, 1 month before the season starts in September. Practice with pads is minimal.

I don’t think it is necessary to practice all year round like in Japan, but it would be nice to have a little more practice.

Yazawa described the gap between his playing experience in Japan, where it is normal to undertake a lot of training, and the amount and frequency of training required by NCAA rules. Regarding football, Yazawa felt that he did not have enough time to prepare appropriately for a short period between practices, which included contact. Kusanagi also described eligibility as follows.

I think the education system was the most challenging part for me. I knew that in the American educational system, you have to study. If you do not study hard and get good grades, you cannot play soccer. I had to study hard, and it was not easy.

Kusanagi mentioned that to maintain eligibility in the NCAA, he needed to obtain sufficient academic grades. This situation is very different from the Japanese educational system, and participants seemed to have difficulty balancing sports and academic studies. In addition, five participants referred to the characteristics and services offered by the university. Sugimoto, for example, described this issue as follows.

The university I went to only had outdoor tennis courts in its facilities. So if it rained, training was canceled, and we just trained at the gym. Before matches, I would go to the indoor court to practice, which was 30 minutes away by car. It was very inconvenient. It would have been nice to have an indoor court.

Sugimoto was not satisfied with the facility he used for tennis practice. However, he had to adapt to the inconvenience of using a different facility, which is not something the individual student can control. Thus, adapting to NCAA regulations and the university itself also challenged the Japanese ISAs.

Discussion
The main findings of this study indicate that Japanese student-athletes experience challenges in academic, social, athletic, personal-emotional, and institutional adjustment (Popp et al., 2010). A theoretical framework was applied to understand their adjustment experiences. While the participants exhibited similar tendencies to ISAs in general, they appeared to be perplexed by cultural differences between Japan and the US, differences in communication styles, and systemic differences in academic study and athletic training that are unique to the Japanese context. Participants described these challenges by making comparisons with their experiences in Japan when discussing their experiences of the adjustment process.

First, in terms of academic adjustment, students appeared to have difficulty expressing their opinions in discussions because of the gap between the lecture-oriented teaching style in Japan and the tendency to conform their opinions to the generally accepted correct answers. Kaczmarek et al. (1994) reported that international students may face some of the same adjustment problems during the transition to higher education as American students. In addition, they noted that international students may have a more difficult transition to college than American students because they are faced with an unfamiliar language and culture in a new country. Among them, Japanese students who studied at US universities found that cultural and language differences, collectivist tendencies, and negative experiences with professors and other students created and exacerbated their academic and social difficulties and feelings of alienation and isolation (Sato & Hodge, 2009). In addition, Japanese school environments tend to emphasize effort, group activities, and peer control, while American schools tend to emphasize competence, individual activities, and teacher control (Stevenson & Stigler, 1992).

Furthermore, according to Allen and Ingulsrud (2005), in Japanese texts, unimportant content is typically located at the top of the page, whereas meaningful content is located at the bottom of the page. In English texts, in contrast, the first sentence typically conveys the paragraph’s theme. As a result, readers must apply different perceptual processes when reading the two languages because of differences in reading patterns (Tomika & Paradis, 2002). Adapting from Japan’s collectivist society to an individualistic society is another challenge for Japanese students studying at US universities, where individualistic educational systems often criticize students who do not speak up in class when teachers pose questions (Hofstede, 2001). In such cases, students who do not participate in classroom discussions are considered to be unable to follow or understand the lecture. According to Hofstede (2001), students in collectivist cultures tend to consider it inappropriate to speak up unless called upon by the professor. This cultural and linguistic background may also make the academic adjustment challenges of Japanese ISAs more difficult.
In addition, in the task of social adjustment, participants struggled with cultural differences from Japan, including differences in background experiences and perceptions, as well as differences in communication styles. In many cases, participants were particularly stressed by differences in daily habits and mindset. In past studies, minority students at predominantly white colleges and universities have reported difficulty establishing social relationships with their white peers and hesitancy in communicating with their white peers, despite the need for social adjustment and assimilation (Sato & Hodge, 2009). As Barnlund (1989) noted, Japanese students typically do not expose their private selves, including their emotions, in conversations with strangers, and express their problems only to their inner circle of friends and family.

Furthermore, language barriers are among the most common challenges faced by Japanese students when establishing social relationships, causing anxiety, fear, and isolation (Bang et al., 2008). In addition, the speech patterns and tones of other languages are often tied to the native language, and some English sounds are complicated for native Japanese speakers to acquire (Wells, 2000). Regarding differences in communication styles between Japan and the US, it is also necessary to understand the differences between high-context communication and low-context communication. High-context communication tends to be inadequate and implicit, and contains indirect messages, whereas low-context communication contains a large amount of information and is explicit (Hall & Hall, 1990). In other words, in high-context communication, such as that conducted between Japanese people, listeners are expected to guess what the speaker is trying to say with a few statements. These differences in speech can easily lead to misunderstandings when Japanese and American people converse, which can affect individual thoughts and feelings (Barna, 1998).

Differences in language and cultural backgrounds also appear to impact the challenges of athletic adjustment. Comeaux and Harrison (2011) noted that striking the right balance between academic and athletic life can be challenging for student-athletes who are in the process of adjustment. In the current study, students mentioned the need to maintain a balance between the two roles of the student-athlete, and suggested that these competing roles, coupled with time demands, can interfere with academic and athletic performance. In addition, ISAs, especially those whose native language is not English, may struggle to meet the NCAA’s academic eligibility requirements (Connell, 2007). The ISA adjustment experience is complicated by the need to address the challenges of both international students and student-athletes. Japanese student-athletes must adjust to their roles as competitors to succeed at the high level of NCAA Division I competition. However, they must also adjust as students in a culturally and linguistically different environment. Regarding conditioning for competition, some participants felt that they could not eat as much as they would like because the foods available in the US were different from those in Japan. Previous studies have also noted that cafeteria food is often not appealing to ISAs (Rodriguez, 2014), and that it is difficult for ISAs to perform at a high level in the face of rapid dietary changes. In the current study, participants also reported that gaps in physique and athletic ability, tactical adjustments, and gaining playing opportunities were challenges.

In addition, participants reported that they faced challenges related to disadvantages in physical size and athletic ability when adapting competitively, making tactical adjustments, and gaining playing opportunities. However, these issues may be faced by all student-athletes, not just Japanese ISAs, because they depend not only on race and country of origin but also on the sport and the individual’s qualities and abilities as an athlete. In terms of personal emotional adjustment challenges, participants experienced homesickness, low motivation, and loneliness. Pierce et al. (2011) found that ISAs suffered from loneliness and homesickness after coming to the US, which is consistent with the current study’s findings. When non-native English speakers experience negative emotions such as sadness and suffering, their language skills may become impaired. Thus, individuals may struggle to acquire a new language unless they have sufficient language skills and experience in the country (Gass and Selinker, 2001).

Furthermore, once an individual’s fear of not being able to succeed or perform concerning communication in a second language is experienced (Lin & Yi, 1997), the effects may persist for some time after they begin to become accustomed to their environment. Therefore, it can be inferred that for the participants in the current study, social anxiety caused by language and cultural adjustment difficulties may have been a significant factor in their emotional challenges, rather than simply being lonely while away from their parents. In addition, given that Gass and Selinker (2001) noted that social anxiety leads to avoidance of communication in society when speaking a second language, it can be assumed that the more significant this anxiety becomes, the more it affects the development of subsequent social relationships. Regarding the impact of cold and inclement weather on personal emotional adjustment, Searle and Ward (1990) found that religion, language, and climate are often the most important factors separating international students from their new cultural context, causing significant conflict. Popp (2007) also reported that the ISA recognizes climate adjustment as a challenge. Because Japan has both warm and cold climates in different regions, Japanese students studying in the US may find it difficult to adjust to the climatic differences between the region they are studying in and the region they are familiar with.

Regarding the issue of school institutional adjustment, some participants expressed difficulty adapting to NCAA rules, which are very different from those of the school sports system in Japan. Although NCAA competitions and many of their...
rules are well-informed and well-known in the US, many ISAs are unfamiliar with the organization, its structure, and the stakeholders involved (Bale, 1991). Popp (2007) reported that better preparing international students for their departure to the US before leaving their home country can help to limit the impact of culture shock among ISAs. In addition, Popp (2007) recommends that students should be provided with information in advance, not only about athletics but also about college life in the US, student visas, and facts and figures about other international students’ college experiences. Adjustment challenges are commonly faced by ISAs who come from different cultural sporting backgrounds, and the current findings suggest that this also applies to Japanese ISAs.

Limitations of the study
This study involved several limitations. First, the study was limited to the perspectives of a small number of Japanese ISAs. Incorporating the voices of more participants could potentially improve the breadth of perspective and comprehensiveness of the findings. Second, this study did not allow for more extended conversations or interviews with participants. This may have limited the depth of information gathered and possibly participants’ openness to telling their stories. However, these limitations did not undermine the truthfulness of participants’ interview responses, their consent to share the recorded data, or the researcher’s interpretation through member checks or email follow-up. These limitations should be addressed in future studies.

Recommendations and conclusions
The Japanese ISAs who participated in this study faced academic, social, athletic, personal-emotional, and institutional attachment challenges. In this context, Japanese ISAs differed from ISAs from other countries in several ways. Participants seemed to be perplexed by cultural differences, differences in communication styles, and systemic differences in academics and athletics between Japan and the US. First, as an academic adjustment issue, one respondent felt difficulty expressing her own opinions in discussions because of the gap between the lecture-oriented teaching style in Japan and her tendency to match her own opinions with the generally accepted correct answers. Therefore, Japanese students who wish to play in the ISA in the NCAA may find it valuable to gain experience through private services to familiarize themselves with the discussion-based teaching style or study abroad in a country where the teaching style is similar to that of the US. Alternatively, universities and coaches must recognize such issues and provide appropriate support. Second, regarding social adjustment challenges, participants struggled with cultural differences from Japan, such as differences in background experiences, perceptions, and communication styles.

Furthermore, when building relationships with teammates and coaches, we found that some Japanese ISAs experienced communication-based prejudice because they were Asian minorities on the team. It would be difficult to deal with these perspectives, even for students living a typical university lifestyle in Japan. Therefore, to achieve smooth adjustment, it is necessary to build more relationships with people who are culturally and linguistically diverse, and, in the process, to deepen mutual understanding of various cultures and beliefs. In addition, universities and coaches need to understand the nature of Japanese ISAs and come to terms with each other. Third, differences in language and cultural backgrounds seemed to impact the challenges of competitive adjustment. Japanese student-athletes are not only required to adapt as competitors to succeed at the high level of NCAA Division I competition but also to adapt as students in a different culture and language environment at the same time. Therefore, Japanese ISAs need to understand the complex adjustments required, coupled with the linguistic and cultural distance between Japan and the US. Universities and coaches need to ascertain the extent to which they can adapt to Japanese ISAs, not only athletically but also in other aspects, and to provide appropriate support if there are factors affecting athletic performance because of insufficient adjustment. Fourth, participants felt homesickness, lack of motivation, and loneliness during the adjustment process. It was inferred that social anxiety resulting from language and cultural adjustment difficulties played significant roles in their emotional challenges, rather than simply experiencing loneliness as a result of being away from their parents. When Japanese ISAs are unable to adjust appropriately to their new environment, they tend to have adverse emotional reactions, which can be addressed by having positive dialogue and identifying the adjustment issues contributing to their reactions. Fifth, regarding institutional attachment issues, some participants seemed to have difficulty adapting to NCAA rules, which were very different from the school sports system in Japan. While the NCAA and many of its rules are well-informed and well-known in the US, many ISAs may not be familiar with the organization, structure, or member institutions. Therefore, to limit the impact of culture shock on Japanese ISAs, it is recommended that information be provided in advance about competition and college life in the US, student visas, and facts and figures about other international students’ college experiences. By identifying college adjustment challenges among Japanese ISAs, the current study encourages a better understanding of Japan, which is likely to become an increasingly important recruiting market for US universities in the future.

Data availability
Underlying data
All datasets underlying the results cannot be sufficiently de-identified by redaction for uploading to a general data repository due to the sample size and nature of the conversations. Thus, the datasets are not available to share for ethical
and privacy considerations as well as the guarantee given to the interviewees to maintain anonymity of the interview. A reader or reviewer may apply for access to the datasets by contacting the corresponding author (matsuo.hirokazu.ga@u.tsukuba.ac.jp) directly. The access will be available upon considering the request and permission received from the interviewees. The raw datasets are in Japanese.

**Extended data**


This project contains the following extended data:

- Interview guide in Japanese

A summary of the interview questions in English can be found in Table 1.

Data are available under the terms of the Creative Commons Attribution 4.0 International license (CC-BY 4.0).

**Acknowledgments**

We thank Benjamin Knight, MSc., from Edanz (https://jp.edanz.com/ac) for editing a draft of this manuscript. This study was conducted as a joint research project with second place Inc.

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