International Student-Athlete Adjustment to College: A Preliminary Analysis

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This preliminary investigation was undertaken to determine how well international student–athletes adjusted to college relative to their domestic teammates and the general student body. The results revealed that international student-athletes were significantly more well-adjusted to college than international nonathletes. International student–athletes adjusted to college as well as students and student–athletes from the United States. Results should be interpreted with caution due to the small sample size. The effects of gender and ethnicity on adjustment to college were also examined.

College and university athletic recruiting horizons are increasingly expanding beyond U.S. borders. The number of international basketball players at the National Collegiate Athletic Association (NCAA) Division I level has doubled since 1993 (Wolff, 1998). However, basketball is not unique in its global reach. A survey by the NCAA (1996) revealed increasing trends in the number of international student–athletes participating in a variety of men's and women's sports at all division levels. The sports with the most international recruits included soccer, tennis, ice hockey, track, volleyball, basketball, and swimming (see Tables 1 and 2).

The presence of international student–athletes at American colleges and universities is not a recent occurrence. It began with a small number of Canadian track-and-field athletes at the turn of the century. By the early 1950s, recruiting and the provision of athletic scholarships were part of normal operations among the major sport-oriented universities and contributed to the influx of foreign recruits (Stidwill, 1984). The 1960s and 1970s witnessed the establishment of athletic pipelines at certain schools, especially in track and field. The two most notable of these were the University of Texas El Paso and Washington State University with their continuous supply of African runners who led their teams to several national cross-country championships (Stidwill, 1984). The increasing number of international student–athletes was accompanied by a commensurate increase in criticism from those concerned about the potential repercussions that these athletic imports might have on the quantity and quality of intercollegiate athletic opportunities for domestic athletes, and it remains a subject of debate today.

Controversies associated with international recruiting have included concerns about the age of international recruits, the expenditure of American tax dollars, the diminished number of scholarships available for American athletes, and the effect of

Table 1 Number and percentages of international student–athletes in selected NCAA men's sports

	Number		Percentage of International Student–Athletes per Sport	
Sport	1991–92	1995–96	1991–92	1995–96
Soccer	1,166	1,341	8.00	8.70
Tennis	941	1,238	12.41	16.50
Ice Hockey	756	924	20.67	25.63
Track	585	688	3.21	3.86
Basketball	276	428	2.14	2.98
Swimming	303	344	3.94	4.76
Golf	271	319	3.96	4.56
Football	221	224	0.44	0.44
Baseball	115	151	0.54	0.67
Skiing	53	70	7.52	13.11
Squash	0	60	0.00	14.67

Note. These totals include international students only. Data on the numbers of U.S. and international athletes in each sport were unavailable.

Table 2 Number and percentages of international student–athletes in selected NCAA women's sports

Sport	Number		Percentage of International Student–Athletes per Sport	
	1991–92	1995–96	1991–92	1995–96
Tennis	498	700	7.05	9.38
Track	265	377	2.16	2.72
Volleyball	168	299	1.70	2.75
Basketball	121	261	1.11	2.07
Swimming	143	222	1.82	2.78
Soccer	86	198	1.15	1.81
Golf	88	137	5.22	7.69
Softball	50	93	0.50	0.83
Field Hockey	78	60	1.75	1.29
Skiing	34	57	6.37	13.06
Crew	24	28	1.56	1.06

Note. These totals include international students only. Data on the numbers of U.S. and international athletes in each sport were unavailable.

world-class athletes on collegiate competition. Some individuals believe that American sports is undermined by the provision of resources, facilities, coaches, and money to support international athletes who then compete against Americans in international competitions (Hoffer, 1994). Others argue that international student–athletes at U.S. colleges and universities benefit American Olympic hopefuls by raising the level of play.

The achievement-oriented sports ideology that pervades American intercollegiate athletics programs supports the notion that teams need to recruit the best players regardless of national origin. Job security and the pressure to win may be factors influencing a coach's decision to recruit international student–athletes. Whether the pressure is self-imposed or from external sources, such as athletic directors, most coaches want to win and international players provide a means for their teams to compete with the higher-profile programs (Asher, 1994).

Despite the ongoing debates associated with recruiting international student–athletes, the influx of athletic talent from abroad is likely to not only continue but escalate. Although the National Junior Collegiate Athletic Association (NJCAA) instituted a rule in 1992 that stipulated that teams could award no more than 25% of their grant-in-aid money to international student–athletes (Hoffer, 1994), the NCAA imposed no restrictions regarding the number of international student–athletes allowed to participate in U.S. university sports programs or the amount of athletic aid that can be given to them. In fact, the NCAA is capitalizing on an increasing interest overseas in American collegiate sports as it looks for networks to handle foreign telecasts of its championships (Suggs, 1998).

Advances in technology and communication have also aided coaches in recruiting international players. The Internet has allowed athletic programs to more readily market their products and has enabled coaches to easily converse with potential recruits from all corners of the globe. Athletic scouting services have broadened recruiting boundaries internationally, and some collegiate coaches conduct clinics overseas. In addition, more college teams are taking summer tours abroad to play against foreign talent as well as hosting international teams on tour in the United States (Huth, 1998).

Because international student–athletes are increasingly becoming fixtures on American college campuses, coaches and athletic administrators may wonder how well these individuals are adjusting to college life relative to their American teammates and the general student body. For many students, entering college can be an anxiety-ridden transition (Luzzo, Henao, & Wilson, 1996). The transition to college is marked by complex challenges in emotional, social, and academic adjustments (Chickering, 1969). Student–athletes experience additional pressures of adjusting to the demands of participating in intercollegiate athletics (Etzel, Ferrante, & Pinkney, 1996; Jackson & Krane, 1993; Ryan, 1989). For international student athletes, cultural concerns can be added to the list of stressors (Church, 1982; Luzzo, Henao, & Wilson, 1996; Parr, Bradley, & Bingi, 1992; Zimmermann, 1995). Some students find ways to make this transition constructively and are able to adapt to college, whereas others feel overwhelmed and unable to effectively meet the demands of their new roles (Gerdes & Mallinckrodt, 1994).

In general, adjustment is defined as the process

of bringing a situation into a more satisfactory state (Woolf, 1977). Adjustment to college has been defined in a variety of ways. Bennett and Okinaka (1990) described college adjustment as the opposite of transitional trauma, which is defined as the level of alienation a student experiences when unfamiliar with the norms, values, and expectations that predominate in the environment. Chartrand (1992) defined adjustment to college as institutional commitment, feelings of academic adjustment, and the absence of psychological distress. Baker and Siryk (1989) viewed college adjustment as a multifaceted phenomenon that involves various demands and coping responses.

According to Baker and Siryk (1989), many of the early instruments designed to measure adjustment to college lacked comprehensiveness and failed to address issues of validity and reliability. Therefore, they developed the Student Adaptation to College Questionnaire (SACQ).

While the SACQ has been used in numerous studies involving various student subgroups, no studies were found in which the researchers had used the SACQ with student–athletes. In their study on involvement in extracurricular activities, Woo and Bilynsky (1994) used the SACQ and drew some parallels between student involvement in extracurricular activities and athletics; however, the focus of their study was not on student–athletes.

Several sport-specific studies (Clark, Horton, & Alford, 1986; Hurly & Cunningham, 1984; Pascarella & Smart, 1991; Ryan, 1989; Sellers, 1992; Shapiro, 1984; Sowa & Gressard, 1983; Weber, Sherman, & Tegano, 1987) have focused on the relationship between athletic participation and academic performance, but few have looked at adjustment to college. Etzel, Ferrante, and Pinkney (1996) provided one of the most comprehensive resources examining the developmental experiences of college student–athletes. They explored various issues and interventions associated with counseling college student–athletes. The premise of their book is that student–athletes face unique and complex stressors that seem to make them more susceptible than other students to psychological distress. They argued that special services are needed to assist student–athletes with the trials and tribulations of the athletic experience. The unique counseling needs of several distinct populations, including African American student–athletes, female student–athletes, and injured student–athletes, are addressed. Nonetheless, no mention was made of international student–athletes. Several other researchers (Adler & Adler, 1991; Armenth-Brothers, 1995; Jackson & Krane, 1993; Templer & Daus, 1979) who investigated student-athlete adjustment to college also failed to include international student–athletes in their studies.

Armenth-Brothers (1995) argued that the SACQ may be an inadequate tool for measuring intercollegiate athletic adjustment because it lacks a dimension specific to athletics. She developed an instrument, the Perception of Adjustment to Sports Questionnaire (PASQ), to assess student adjustment to the athletic environment. Her study yielded only a 7% return rate, and thus, her few significant findings should be interpreted with caution. While her argument against utilizing the SACQ for student-athlete populations has merit, the SACQ addresses four important components of adjustment to college that are applicable to all students, including student–athletes. In fact, the SACQ may be appropriate when comparisons between athletes and nonathletes are made.

The present study was designed to determine how well international student–athletes were adapting to college compared not only to their domestic teammates but also relative to the general student body. In particular, we sought to determine if any significant differences in adjustment to college existed based on various subgroup classifications and certain demographic variables. For the present study, domestic students and student–athletes were classified as either in-state or out-of-state. Astin (1984) noted that students were more likely to persist at schools that were similar to their hometown environments. Few studies have investigated the effects of state-residency status on adjustment to college, and thus, the distinction was made in this study for exploratory reasons.

The demographic variables of interest in this study were gender and ethnicity. Statistical data (Funk, 1991; "Division I Athletes," 1999) have revealed that female student–athletes graduate at a higher rate than male student–athletes and the general student body, while male student–athletes, particularly those participating in football and basketball, graduated at a lower rate than the general student body. The evidence also shows that the graduation rate for Black student–athletes is significantly less than the graduation rate for White student–athletes (Funk, 1991). Gerdes and Mallinckrodt (1994) found that student retention and subsequent graduation are associated with overall adjustment to college. Therefore, the disparate graduation rates cited above indicate that differences in adapting to college may be based on gender and ethnicity for the subgroups in this study.

Two primary research questions were established to guide this study:

Research Question 1: Are there any significant differences in adjustment to college among the student-athlete and nonathlete subgroups (i.e., in-state, out-of-state, and international)?

Research Question 2: Are there any significant differences in adjustment to college among the student-athlete and nonathlete subgroups based on demographic variables (i.e., gender and ethnicity)?

Method

The population included all athlete and nonathlete undergraduate students at a large midwestern university. A list of all student–athletes participating on intercollegiate athletic teams during the 1997–98 academic year was obtained from the athletic department of the institution under investigation in this study. Overall, the list comprised 50 international and 916 domestic student–athletes. Because the total number of international student–athletes was relatively small, the sample for that particular subgroup included the entire population. For domestic student–athletes, a systematic random sample was drawn. Systematic random sampling was also employed to select a sample of international nonathletes. The Office of International Education supplied a list of 1,775 names of international undergraduate students at the institution. Those chosen from this list were compared to the list of international student–athletes so that there would not be any duplications. Because the researchers were unable to obtain an accurate list of all undergraduates at the institution and due to financial limitations, convenience sampling techniques were used to obtain a sample of domestic nonathletes. Surveys were directly distributed to students enrolled in a variety of physical activity and health courses. The participants were selected from these courses because they were readily accessible, and students at all undergraduate levels, from freshmen to seniors, were represented in these courses.

Adjustment to college was measured with the SACQ (Baker & Siryk, 1989). The SACQ is a 67-item self-report questionnaire that is designed to assess how well a student is adapting to the demands of the college experience. Each SACQ item is a statement to which the student responds on a 9-point Likert-type scale that represents applicability of the statement to the student's situation. The scale ranges from "applies very closely to me" to "doesn't apply to me at all." The SACQ is composed of four principal subscales: academic adjustment, social adjustment, personal-emotional adjustment, and institutional attachment. The four subscales contribute to the full scale score, an indicator of overall adjustment, but because nine items on the SACQ are contained on two subscales and two items are unique to the full scale score, the calculation to determine the full scale score is not a simple summation of the subscales. Baker and Siryk (1989) do not advise that the full scale score be used exclusively to interpret the data as this practice ignores the basic assumption of the SACQ: Adjustment to college is multifaceted.

Data collection procedures varied for each of the subgroups being sampled in this study. The associate athletic director in charge of counseling coordinated the distribution and collection of the surveys to and from student–athletes. We collected from nonathlete international students, who returned the mailed surveys, and followed Dillman's (1978) Total Design Method. We collected data from nonathlete American students by directly administrating the SACQ during class. Because NCAA rules prohibit the provision of incentives to student–athletes, no incentives to encourage participation were used for any of the respondents.

Results

Table 3 highlights the response rates according to subgroups and provides demographic information (i.e., gender and ethnicity). The response rates varied among the subgroups and the majority of respondents were in-state nonathlete students. A total of 80 usable responses were received for domestic student–athletes and 16 for international student–athletes. More females (N = 203) than males (N = 158) responded to the survey. Approximately 18% of the respondents did not indicate their gender. The majority of respondents were Caucasian (N = 296), followed by Asians (N = 89), and African Americans (N = 26). Three percent of the respondents chose not to answer this item.

The respondents ranged in age from 18 to 47 years with a mean age of 22 years. Eighteen percent of the respondents were first-year students; 18% were second-year students; 16% were third-year students; 13% were fourth-year students; 5% were fifth-year students; and 30% of the students did not respond to this question. The lack of response on this particular item may have been due to the design of the survey instrument. Students may have more clearly understood choices of class status (i.e., freshman, sophomore, junior, and senior) rather than year at the institution.

Table 3 Number of students (%) in the sample by subgroup, ethnicity, and gender

	In-State		Out-of-State		International	
	Non-Athlete	Athlete	Non-Athlete	Athlete	Non-Athlete	Athlete
Total Sample	245 (55)	40 (9)	24 (5)	40 (9)	78 (17)	16 (4)
Gender						
Male	88 (47)	16 (40)	7 (39)	10 (26)	34 (55)	3 (21)
Female	101 (53)	24 (60)	11 (61)	28 (74)	28 (45)	11 (79)
Ethnicity						
Asian	14 (6)	0 (0)	3 (13)	2 (5)	68 (89)	2 (13)
African American	16 (7)	4 (10)	2 (9)	2 (5)	1 (1)	1 (7)
Hispanic	4 (2)	0 (0)	0 (0)	1 (3)	1 (1)	0 (0)
Native American	3 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Caucasian	197 (82)	32 (82)	18 (78)	34 (87)	5 (7)	10 (67)
Other	5 (2)	3 (8)	0 (0)	0 (0)	1 (1)	2 (13)

Note. With the exception of the total sample, percentages are calculated within a subgroup.

An internal consistency estimate (Cronbach's alpha) was calculated to determine the reliability of the SACQ for this particular sample. The Cronbach's alpha values were 0.93 for the full scale score, 0.84 for the academic adjustment subscale score, 0.87 for the social adjustment subscale score, 0.83 for the personal-emotional adjustment subscale score, and 0.86 for the institutional attachment subscale score. All of these reliability values were within the ranges reported in the SACQ Manual (Baker & Siryk, 1989) for previous studies utilizing this instrument.

The means and standard deviations calculated for SACQ data are presented in Table 4. Analyses of Variance (ANOVAs) were used to assess differences in adjustment among the various subgroups, and when appropriate, these were followed by Scheffe's post-hoc analyses. Results revealed that the full scale score (F (5, 437) = 8.30, $p < 0.001$) and all subscale scores, academic adjustment (F (5, 437) = 3.95, $p < 0.01$), social adjustment (F (5, 437) = 15.04, $p < 0.001$), personal-emotional adjustment (F (5, 437) = 3.35, $p < 0.01$), and institutional attachment (F (5, 437) = 10.19, $p < 0.001$), were significant.

Scheffe's post-hoc analyses indicated that international nonathletes had a significantly lower full-scale score than all of the other subgroups except in-state student–athletes. In regard to the academic adjustment subscale score, Scheffe's post-hoc analyses revealed that international nonathletes scored significantly lower than international student–athletes. Scheffe's post-hoc analyses show that international nonathletes scored significantly lower on the social adjustment subscale than did all other subgroups.

Scheffe's post-hoc analyses did not reveal any significant differences among the subgroups for personal-emotional adjustment subscale scores. For the final subscale, institutional attachment, Scheffe's post-hoc analyses indicated significant differences between international nonathletes, domestic nonathletes, and domestic student–athletes. International nonathletes felt less attachment to their university than did domestic subgroups, but no significant difference in attachment was found between these groups and international student–athletes.

ANOVAs indicated that academic adjustment (F (1, 363) = 5.78, $p < 0.05$) and institutional attachment data (F (1, 363) = 4.82, $p < 0.05$) were significant. Males were less well-adjusted academically than were females (see Table 5). In addition, males indicated less attachment toward the university than did females.

The ANOVAs based on ethnicity revealed that all subscales except academic adjustment were significant: full scale (F (5, 430) = 6.76, $p < 0.001$), social adjustment (F (5, 430) = 10.89, $p < 0.001$), personal-emotional adjustment (F (5, 430) = 3.13, $p < 0.01$), and institutional attachment (F (5, 430) = 8.08, $p < 0.001$). Scheffe's post-hoc analyses indicated that no two groups were different at the $p < 0.05$ level for personal-emotional adjustment. However, in terms of overall adjustment to col-

Table 4 Means and standard deviations for SACQ full and subscale scores

Subgroup	Full *M (SD)*	Academic *M (SD)*	Social *M (SD)*	Personal *M (SD)*	Attachment *M (SD)*
In-State Non	424 (63)	147 (26)	128 (23)	88 (21)	104 (17)
In-State Athlete	417 (51)	142 (23)	132 (23)	81 (18)	107 (15)
Out-State Non	437 (58)	154 (19)	135 (25)	87 (16)	108 (19)
Out-State Athlete	418 (66)	143 (23)	132 (20)	83 (22)	105 (18)
International Non	377 (58)	138 (26)	105 (19)	80 (19)	90 (16)
International Athlete	445 (75)	163 (23)	129 (28)	93 (26)	103 (22)

Table 5 Means and standard deviations (*SD*) for SACQ full and subscale scores by gender

Gender	Full *M (SD)*	Academic *M (SD)*	Social *M (SD)*	Personal *M (SD)*	Attachment *M (SD)*
Male	409 (62)	142 (24)	123 (24)	86 (19)	100 (17)
Female	421 (68)	148 (27)	127 (26)	85 (22)	105 (18)

Table 6 Means and standard deviations (*SD*) for SACQ full and subscale scores by ethnicity

Ethnicity	Full *M (SD)*	Academic *M (SD)*	Social *M (SD)*	Personal *M (SD)*	Attachment *M (SD)*
Asian	384 (62)	140 (27)	110 (21)	80 (21)	92 (17)
African American	422 (68)	146 (27)	127 (25)	87 (21)	108 (18)
Caucasian	427 (61)	148 (25)	130 (24)	88 (20)	105 (17)
Hispanic	404 (74)	152 (24)	113 (30)	80 (12)	95 (18)
Native American	404 (91)	145 (36)	121 (21)	80 (27)	104 (14)
Other	392 (63)	138 (29)	118 (22)	74 (18)	100 (15)

lege, Asians, most of whom were non-American, were less well-adjusted than were Caucasians (see Table 6). Furthermore, in regard to social adjustment to college, Asians were less well-adjusted than African Americans and Caucasians. Similar findings were revealed for institutional attachment. Asians indicated less attachment to the university than did Caucasians and African Americans.

Discussion

Two major limitations to this study require that the reader interpret results with caution. First, the sample size of the group of primary interest, international student–athletes, was small ($N = 16$) and thus generalizability is limited. Second, the use of a nonrandom sample in selecting domestic nonathletes may have affected the results. Students enrolled in physical activity and health courses represented all undergraduate levels (freshmen through seniors); however, their enrollments in such courses may have influenced their adjustments to college. Exercise appears to be associated with positive changes in mood states and reductions in anxiety and depression (Weinberg & Gould, 1999). Students who sign up for physical activity and health courses may be more likely than the general student population to reap the physical and psychological benefits of exercise and, as a result, adjust to college differently than students not enrolled in such courses. Thus, the sample of domestic nonathletes who participated in this study may not reflect a true representation of the general student body. In addition, the direct administration of the survey to domestic nonathletes contributed to a much higher response rate than for the other groups in this study. Despite these limitations, the information gleaned from this study may still be of interest to coaches and counselors. When reading this discussion section, readers should consider that this study was exploratory in nature and the findings are preliminary.

While most of the significant differences found in this study involved international nonathletes, the focus of this discussion is on the results that pertained directly to the subgroup of primary interest: international student–athletes. International student–athletes had the highest mean scores for overall adjustment to college. Statistically, they were significantly more well-adjusted than international

nonathletes. This may be due to the fact that the international nonathletes in this sample were primarily from Asia while most of the international student–athletes were from North America or Europe. Thus, international student–athletes had less cultural distance between themselves and their home cultures and fewer adjustments to make in comparison to their international nonathlete counterparts.

International student–athletes also had the highest mean score of all the subgroups on the academic adjustment subscale. Bale (1991) found that obtaining an education was of prime importance to most international student–athletes and they were usually academically well prepared. This finding may spark the attention of college coaches concerned with academic eligibility issues. International recruits may pose less of an academic risk than some of their American counterparts. International student–athletes again scored significantly higher than international nonathletes on the social adjustment subscale. Church (1982) reported that the number, variety, and depth of social encounters with host nationals may be the most important or decisive factors related to sojourner adjustment. Athletes tend to form strong social bonds with teammates and this may create an environment more favorable to adjustment (Bale, 1987).

In regard to the demographic variables examined, the results of gender were unexpected. Baker and Siryk (1989) found significant gender effects for two of the five SACQ subscales: social adjustment and personal-emotional adjustment. However, the results of the current study indicate significant gender effects for the academic adjustment and institutional attachment subscales but no significant gender effects for the social adjustment or personal-emotional adjustment subscales. It is not clear why the men in this study were less academically well-adjusted and less attached to the university than were the women. Perhaps the higher response rate by women in all but one subgroup contributed to these findings. Students who cared about the university and were doing well in school may have been more likely to return their questionnaires, and in this case, more females (56%) returned the surveys.

Scheffe's post hoc analysis revealed significant effects of ethnicity for the full scale, the social adjustment subscale, and the institutional attachment subscale. In regard to overall adjustment to college, Asians were less well-adjusted than were Whites. Because the majority of Asians in this study were international students, this finding was not surprising. In fact, it coincided with the earlier finding that international nonathletes, comprised primarily of Asians, were less well-adjusted overall in comparison to all of the other subgroups, which were comprised mainly of Caucasians. As for social adjustment and institutional attachment, Asians had significantly lower scores than Caucasians and Blacks. Similar to Caucasians, the majority of Blacks in this study (92%) were domestic students or student–athletes. Because most of the Caucasian and Black students in this study were Americans, they probably adapt to the campus social scene and identify more with the university than the Asian students who were predominantly international students.

In conclusion, adjustment to college did not appear to be problematic for international student–athletes in comparison to nonathletes or domestic student–athletes in this study. In fact, international student–athletes had the highest mean score of all subgroups in terms of academic and overall adjustment to college. However, these findings must be interpreted with caution due to the relatively low number of international student-athlete respondents. Nevertheless, the results of this study may be of interest to college coaches, counselors, and other university personnel as recruiting landscapes expand into international arenas.

Recommendations for future research are to replicate this study with a larger sample of international student–athletes. Also, interviews with international and domestic student–athletes, coaches who have experience with international recruits, and athletic counselors who assist student–athletes with adjustment to college may reveal more insights into this issue. In addition, with a larger sample, comparisons in adjustment to college could be made based on athletic division, sport, or among international student–athletes from various countries or regions of the world. We also recommend that a survey instrument be developed that includes an athletic dimension. While the SACQ is applicable to all students, more could be learned by the addition of a dimension that targets athletic adjustment. Adjustments to coaches, teammates, workouts, competition, media exposure, and team travel are all factors unique to student–athletes.

Another avenue of related research could involve an investigation of the current policies and practices of intercollegiate athletic departments to assist both domestic and international student–athletes with their transitions to college. Since its launch in 1994, many college and university athletic departments have implemented the NCAA CHAMPS/Life Skills Program (Challenging Athletes' Minds for Personal Success). This program was developed to help student–athletes deal with their multifaceted roles on

campus. It focuses on five areas of commitment that include academic excellence, athletic excellence, personal development, community service, and career development (Hooks, 2000). Research is needed to evaluate the effectiveness of this and other student-athlete welfare or adjustment programs. Finally, a longitudinal study to monitor adjustment over time would provide a more accurate picture of the adjustment process.

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