

College Adjustment of Football Players: Predictors of First Semester Adjustment to College Among NCAA Division III Intercollegiate Football Players

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ABSTRACT

This study examined predictors of first-semester adjustment to college among 48 first-year intercollegiate football players. Participants completed measures of life stress, social support, quality of their relationship with parents, quality of their roommate relationship, sport satisfaction, athletic identity, and adjustment to college near the end of the first semester. The predictor variables accounted for 43% of the variance in adjustment to college, with quality of the roommate relationship and sport satisfaction emerging as significant ($p < .05$) predictors of adjustment. The results highlight the role of social and sport-related factors in how well first-year intercollegiate football players adjust to college. Recommendations for facilitating positive adjustment are provided.

INTRODUCTION

The transition from high school to college presents many challenges for first-year students. Simply by entering the college environment, adolescents are often thrust into the role of young adult (Berzonsky & Kuk, 2000). The college transition comes at a time when many students are separating from the beliefs of their parents and building their own identities (Blos, 1962; Chickering & Reisser, 1993). Additionally, college students face other developmental tasks that challenge them throughout their college careers. These tasks include developing physical, intellectual, and interpersonal competence, managing emotions, and developing autonomy, purpose, integrity, and mature interpersonal relationships (Chickering & Reisser, 1993). For incoming student-athletes, sport participation provides an additional set of demands and constraints that are not typically experienced by student-nonathletes (Sowa & Gressard, 1983). Pressures to improve their sport skills for higher levels of competition compound the stress of dealing with the expected developmental tasks of first-year students.

Adjustment to college refers to the extent to which students are able to move in a positive direction academically, socially, and emotionally during the transition from high school to college (Baker & Siryk, 1987). In the general college student population, a variety of factors have been identified as contributors to the quality of students' adjustment to college. One such factor is life stress. Inverse relationships have been documented between pre-enrollment levels of stressful life events and subsequent adjustment of first-year college students (Compas, Wagner, Slavin, & Vannatta, 1986; Prancer, Hunsberger, Pratt, & Alisat, 2000).

Another factor that has been found important during the transition to college is social support, which can affect adjustment to college both directly and indirectly. In terms of direct relationships, social support is positively associated with life satisfaction and inversely related to negative feelings such as loneliness, anxiety, and depression among first-year college students (Compas et al., 1986; Pratt et al., 2000). Social support operates indirectly on adjustment by buffering the adverse effects of life stress on adjustment (Cohen & Wills, 1985). In essence, social support can help students cope with the stress associated with entry into the college environment (Tao, Dong, Pratt, & Prancer, 2000).

Two specific types of social support may be particularly important in the adjustment process. The quality of the relationships first-year students have with their parents and their roommates have been correlated with adjustment to college (Helman, 2000; Holmbeck & Wandrei, 1993; Wintre & Yaffe, 2000). During the first year of college, students' relationships with their parents tend to remain consistent while their peer relationships are in a state of flux as high school relationships decline in importance and college relationships develop (Larose & Boivin, 1998). Students who have positive relationships with their parents tend to show more favorable adjustment to college (Holmbeck & Wandrei, 1993). Wintre and Yaffe (2000) found that students who maintain an open discussion with parents and perceive themselves as relative equals with their parents reported better adjustment during the transition to college.

First-year students' relationships with their roommates are of potential importance in the transition to college because they often constitute the first relationship developed on campus, and unless a transfer is requested, these individuals live in close proximity for an entire year. In support of this notion, Helman (2000) found that the quality of the relationship developed between roommates was positively correlated with social adjustment, and knowing one's roommate prior to beginning school was associated with better academic and overall adjustment to college. Roommate relationships may be of particular relevance to student-athletes because coaches often place first-year players in the same room, thereby increasing the likelihood that issues on the field of play could carry over to interactions between roommates.

In addition to the factors affecting the transition to college of the general student population, variables unique to intercollegiate sport participation may influence the college adjustment of student-athletes. Student-athletes can become accustomed to special treatment in high school and during the recruitment process, but very few first-year collegiate athletes participate extensively in sport competitions (Adler & Adler, 1987).

The relative lack of performance opportunities may cause student-athletes to be dissatisfied with their sport involvement, and this dissatisfaction may have an adverse effect on adjustment to college, particularly for those who are strongly identified with the athlete role as a source of self-worth (Brewer, Van Raalte, & Linder, 1993).

The current study was designed to examine factors associated with the adjustment to college of first-year student-athletes. Specifically, life stress, social support, quality of relationship with parents, quality of relationship with roommate, sport satisfaction, and athletic identity were evaluated as predictors of the overall adjustment to college of first-semester NCAA Division III intercollegiate football players. Based on the research reviewed, it was hypothesized that, as with first-year college students in general: (a) life stress would be negatively related to adjustment (Compas et al., 1986; Prancer et al., 2000), (b) social support and the quality of relationships with parents and roommates would be positively related to adjustment (Compas et al., 1986; Pratt et al., 2000), and (c) social support would moderate the relationship between life stress and adjustment (Cohen & Wills, 1985). It was also predicted that satisfaction with sport involvement would be positively associated with adjustment and that this relationship would be stronger for student-athletes who were highly identified with the athlete role.

METHOD

Participants

Participants were 48 first-year students at a small NCAA Division III college who began the academic year participating on the intercollegiate football team. All participants were in their first semester of college. The mean age of participants was 18.23 ($SD = 0.48$) years with an average of 6.47 ($SD = 4.01$) years of self-reported experience playing football. At the time of the study, 29 participants identified themselves as members of the football team, 16 indicated that they had discontinued their participation with the football team, and 3 did not report their team affiliation status. Of those participants who indicated that they were still members of the team, 14 noted that they were on the varsity squad, 14 indicated that they were on the junior varsity squad, and 1 participant did not provide varsity status.

Measures

Life stress was measured with the Life Events Survey for Collegiate Athletes (LESCA; Petrie, 1992). On the LESCA, respondents are asked to indicate which of the 69 events listed on the survey have occurred within the past year and then rate the impact of each of those events on a scale from -4 (*extremely negative*) to $+4$ (*extremely positive*). The survey yields positive, negative, and total life stress scores for college athletes. Petrie reported a test-retest reliability coefficient of .83 for the total life stress scale. In support of the convergent validity of the LESCA, Petrie found that scores on the survey were significantly correlated with those on the Social and Athletic Readjustment Rating Scale (Bramwell, Masuda, Wagner, & Holmes, 1975).

The Social Support Survey (SSS; Richman, Rosenfeld, & Hardy, 1993) was used to measure perceived social support across eight dimensions: listening support, task appreciation, task challenge, emotional support, emotional challenge, reality confirmation, tangible assistance, and personal assistance. Respondents are asked to write down the initials and relationship of people who provide each dimension of support and then rate their satisfaction with that support, the difficulty in obtaining more of the support, and the perceived importance of the support. Richman et al. presented evidence for the test-retest reliability ($r = .44$ to $.87$ over a 5-week period), concurrent validity, and discriminant validity of the SSS.

Relationship with parents was assessed with the Perception of Parental Reciprocity Scale-General Scale (POPRS-GS; Wintre, Yaffe, & Crowley, 1995). The POPRS-GS is a 9-item scale in which respondents rate the degree of perceived reciprocity in the relationship with their parents on a scale from 1 (*strongly agree*) to 4 (*strongly disagree*). Wintre et al. (1995) reported a .87 alpha coefficient for the POPRS-GS and presented evidence in support of the convergent, discriminant, and criterion-related validity of the scale.

Two items were used to measure the quality of participants' relationship with their roommates. The first item asked participants to rate the relationship on a scale from 1 (*very poor*) to 7 (*very good*). The second item asked participants to rate the relationship on a 6-point scale with endpoints of *I changed roommates* and *We hang out a lot outside the dorm room*. The two items were significantly correlated, $r = 0.85$, $p < .01$, so they were summed to create a total score.

An 11-item scale based on the Sport Satisfaction Inventory developed by Whittall and Orlick (1978) was used to assess the degree of satisfaction experienced by participants in association with their involvement in football. Responses are given on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Items address satisfaction with the sport or game itself, practice, position coaches, head coach, teammates, season, future prospects with the team, playing time, captains, and personal performance. An alpha coefficient of .87 was obtained for the scale.

The Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993) was used to assess athletic identity, which is defined as the "degree to which an individual identifies with the athletic role" (p. 237). As modified by Brewer and Cornelius (2001), the AIMS has 7-items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Items focus on the social, cognitive, and affective facets of athletic identity. Brewer et al. (1993) presented evidence supporting the test-retest reliability ($r = .89$ over a 14-day period), internal consistency ($\alpha = .93$), and construct, convergent, and divergent validity of the AIMS.

Adjustment to college was assessed with the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984, 1999). The SACQ consists of 67 statements addressing various aspects of adjustment to college. Respondents rate their level of adjustment to each statement on a scale from 1 (*applies very closely to me*) to 9 (*doesn't apply to me at all*). Half of the items are negatively worded and half are positively worded, with the resulting sum yielding an overall measure of adjustment. Baker and Siryk (1984) reported that SACQ total scores were internally consistent ($\alpha = .92$ to $.94$) and inversely related to attrition from college, thereby providing support for the predictive validity of the inventory.

Procedure

Near the end of the fall academic semester, prior to final exams, all 137 individuals on a list (provided by the coaching staff) of incoming first-year students who had expressed interest in playing on the intercollegiate football team were contacted about participating in the study. Prospective participants were furnished with information about the study and given an opportunity to volunteer as a participant in the study. After signing an informed consent document, participants completed a questionnaire requesting demographic information and the LESCA, SSS, POPRS-GS, roommate relationship items, sport satisfaction scale, AIMS, and SACQ.

RESULTS

Completed questionnaires were obtained from 48 of the 137 (37%) incoming first-year students who had expressed interest in playing intercollegiate football. Means and standard deviations of the predictor and criterion variables are presented in Table 1. The mean POPRS-GS for this sample was approximately 0.5 standard deviations below the mean reported by Wintre et al. (1995) and the mean LESCA total score for this sample was more than a full standard deviation below the mean in the validation study by Petrie (1992). The current sample ranks in roughly the 50th percentile for the AIMS based on norms reported by Brewer and Cornelius (2001). There are no norms available for the SSS and the measure of sport satisfaction and roommate relationship. According to norms presented by Baker and Siryk (1999), the total score on the SACQ for this sample ranks in the 27th percentile.

Independent sample *t*-tests were conducted to determine whether there were differences in overall adjustment between varsity and junior varsity members, and between current and non-current members of the team. Because neither of the *t*-tests were statistically significant, subsequent analyses were conducted across playing and team membership statuses.

Pearson correlations were calculated to examine relationships among the predictor variables (i.e., life stress, social support, quality of relationship with parents, quality of relationship with roommate, sport satisfaction, and athletic identity) and the criterion variable (i.e., total adjustment to college). As shown in Table 2, sport satisfaction and roommate relationship were the only predictor variables significantly correlated with total adjustment to college. Life stress and athletic identity were the only predictor variables that were significantly correlated with each other.

A hierarchical multiple regression analysis was conducted to examine the relationship between the predictor variables and the criterion variable. The predictor variables (i.e., life stress, social support, parent relationship, roommate relationship, sport satisfaction, and athletic identity) were entered on the first step of the analysis. The sport satisfaction by athletic identity and social support by perceived stress interactions were entered on the second step of the analysis. The results of the analysis are summarized in Table 3. The overall regression equation was statistically significant, $F(8, 35) = 4.09, p < .05, R^2 = .48$, with sport satisfaction ($\beta = .53, p < .01$), and roommate relationship ($\beta = .46, p < .01$) the only significant predictors.

DISCUSSION

As predicted, the quality of the roommate relationship and sport satisfaction were positively associated with adjustment to college among first-year intercollegiate football players. The more favorably participants perceived the relationship with their roommates and the more satisfied they were with their involvement in football, the better their adjustment near the end of the first semester of college. Contrary to the hypothesized pattern of results, however, factors found previously to relate to adjustment to college in the general student body (i.e., life stress, social support, and relationship with parents) were not associated with the football players' adjustment to college. Social support did not moderate the relationship between life stress and adjustment, and athletic identity did not moderate the relationship between sport satisfaction and adjustment.

The significant relationship between roommate relationship and adjustment to college echoes that found by Helman (2000) for college students in general and highlights the potential importance of peer interactions in the immediate living environment in influencing intercollegiate football players' adjustment to college. The findings for sport satisfaction suggest that the experiences of student-athletes on the playing field have implications for how well they adjust off the playing field. Student-athletes are often highly invested in their sport participation (Brewer et al., 1993), and when things do not go well athletically, the negative feelings they have about their sport involvement may spill over into other areas of functioning and hamper their overall adjustment to college. Further, given the negative association between adjustment to college and student attrition (Baker & Siryk, 1984), dropping out of school or transferring to another institution are potential consequences of dissatisfaction with one's intercollegiate sport participation. Future research is needed to verify this speculation.

The failure of life stress, social support, and parent relationship to predict adjustment to college among first-year intercollegiate football players is surprising in light of research documenting associations between these variables and adjustment to college for the general student population (Compas et al., 1986; Holmbeck & Wandrei, 1993; Prancer et al., 2000; Pratt et al., 2000; Wintre & Yaffe, 2000). With a larger sample size and the increased statistical power that accompanies it, the results might more closely have approximated those obtained in previous studies.

It should be noted that the current study is limited by its cross-sectional design, which precludes causal inferences from being drawn from the results. It cannot be determined, for example, whether poor adjustment to college is a *cause of or caused by* difficult interactions with one's roommates and dissatisfaction with one's sport involvement. Also, the use of student-athletes from a single fall sport at a single college as participants limits the generalizability of the results. Longitudinal research with student-athletes from multiple sports at multiple colleges would enhance the internal validity and generalizability of the findings. The adjustment to college of student-athletes in fall sports should be compared with that of student-athletes in spring sports to examine the effects of a period of college attendance without intensive practice and competition.

Future research should also assess the extent to which factors not measured in the current study contribute to adjustment to college. Inclusion of individual difference variables such as coping ability (Feenstra, Banyard, Rines, & Hopkins, 2001) and hardiness (Mathis & Lecci, 1999) would help to provide a more comprehensive examination of the adjustment process.

From a pragmatic standpoint, the results of the current study have several implications for facilitating a smooth transition into college for male student-athletes. First, care should be taken to ensure that student-athletes have living situations conducive to positive adjustment. Roommate mismatches should be identified and rectified as soon as possible. When disharmonious roommate relationships exist and roommate changes are not feasible, alternate problem-solving options (e.g., counseling, peer mediation) should be pursued. Second, given that realistic expectations regarding college life are associated with better adjustment for first-year students (Prancer et al., 2000), helping student-athletes develop realistic expectations toward their sport participation could lead to a higher sense of satisfaction and, consequently, better adjustment to college. Clear communication from the coaches and support staff about the role and likely amount of playing time of first-year players could assist in the formation of realistic expectations. The need for communication is of particular importance when the team is naturally large and carries multiple back-ups in all positions. Third, the results of this study indicate a need for academic athletic professionals, coaches, teammates, and athletic trainers to pay attention to on-field events when helping first-year student-athletes adjust to college. Sport participation is highly valued by student-athletes, and how things are going on the playing field appears to serve as a barometer for how well first-year male student-athletes adjust to college. In a similar vein, professionals working with student-athletes should be aware that first-year students who highly value sport participation and try out for an intercollegiate sport team but fail to make the squad might encounter adjustment difficulties.

Overall, because the issue of adjustment to college among first-year student-athletes recurs on an annual basis, a primary prevention approach in which potential threats to successful adjustment are addressed prior to the emergence of adjustment problems (Pearson & Petitpas, 1990) is warranted. Finch and Gould (1996) discussed a training program designed to facilitate the transition of student-athletes from high school to college. The program includes three main steps: (a) helping student-athletes to understand their role in both athletics and academics, (b) helping student-athletes to develop realistic expectations toward professional sport participation, and (c) helping student-athletes to develop a positive outlook and mental attitude toward the transition. Preparing student-athletes for the transition to college life and sport participation could help to promote positive adjustment thereby increasing the likelihood that they will continue their education and have a satisfying sport experience.

REFERENCES

- Adler, P., & Adler, P. A. (1987). Role conflict and identity salience: College athletics and the academic role. *The Social Science Journal, 24*, 443-455.
- Baker, R. W., & Siryk, B. (1987). Measuring adjustment to college. *Journal of Counseling Psychology, 31*, 179-189.
- Baker, R. W., & Siryk, B. (1999). *SACQ: Student adaptation to college questionnaire manual (Rev. ed.)*. Los Angeles, CA: Western Psychological Services.
- Berzonsky, M. D., & Kuk, L. S. (2000). Identity status, identity processing style, and the transition to university. *Journal of Adolescent Research, 15*, 81-98.
- Blos, P. (1962). *On adolescence: A psychoanalytic approach*. Oxford, England: Free Press of Glencoe.
- Bramwell, S. T., Masuda, M., Wagner, N. N., Holmes, T. H. (1975). Psychosocial factors in athletic injuries: Development and application of the Social and Athletic Readjustment Rating Scale (SARRS). *Journal of Human Stress, 1*, 6-20.
- Brewer, B. W., & Cornelius, A. E. (2001). Norms and factorial invariance of the Athletic Identity Measurement Scale. *Academic Athletic Journal, 15*, 103-113.
- Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscle or Achilles heel? *International Journal of Sport Psychology, 24*, 237-254.
- Chickering, A. W., & Reisser, L. (1993). *Education and identity*. San Francisco: Jossey-Bass.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*, 310-357.
- Compas, B. E., Wagner, B. M., Slavin, L. A., & Vannatta, K. (1986). A prospective study of life events, social support, and psychological symptomatology during the transition from high school to college. *American Journal of Community Psychology, 14*, 241-257.
- Feenstra, J. S., Banyard, V. L., Rines, E. W., & Hopkins, K. R. (2001). First year students' adaptation to college: The role of family variables and individual coping. *Journal of College Student Development, 42*, 106-113.

- Finch, L. M., & Gould, D. (1996). Understanding and intervening with the student-athlete-to-be. In E. F. Etzel, A. P. Ferrante, & J. W. Pinkney (Eds.), *Counseling college student-athletes: Issues and interventions* (2nd ed., 223-245). Morgantown, WV: Fitness Information Technology.
- Helman, C. K. (2000). Adjustment to college: The contribution of a living-learning program for science and engineering students [Abstract]. *Dissertation Abstracts International Section A: Humanities & Social Sciences*, 60(10A), 3615.
- Holmbeck, G. N., & Wandrei, M. L. (1993). Individual and relational predictors of adjustment in first-year college students. *Journal of Counseling Psychology*, 40, 73-78.
- Larose, S., & Boivin, M. (1998). Attachment to parents, social support expectations, and socioemotional adjustment during the high school-college transition. *Journal of Research on Adolescence*, 8, 1-27.
- Mathis, M., & Lecci, L. (1999). Hardiness and college adjustment: Identifying students in need of service. *Journal of College Student Development*, 40, 305-309.
- Pearson, R. E., & Petitpas, A. J. (1990). Transitions of athletes: Developmental and preventive perspective. *Journal of Counseling & Development*, 69, 7-10.
- Petrie, T. A. (1992). Psychosocial antecedents of athletic injury: The effects of life stress and social support on female collegiate gymnasts. *Behavioral Medicine*, 18, 127-138.
- Prancer, S. M., Hunsberger, B., Pratt, M. W., & Alisat, S. (2000). Cognitive complexity of expectations and adjustment to university in the first year. *Journal of Adolescent Research*, 15, 38-57.
- Pratt, M. W., Hunsberger, B., Prancer, S. M., Alisat, S., Bowers, C., Mackey, K., Ostaniewicz, A., Rog, E., Terzian, B., & Thomas, N. (2000). Facilitating the transition to university: Evaluation of a social support discussion intervention program. *Journal of College Student Development*, 41, 427-441.
- Richman, J. M., Rosenfeld, L. B., & Hardy, C. J. (1993). The social support survey: A validation study of a clinical measure of the social support process. *Research on Social Work Practice*, 3, 288-311.
- Sowa, C. J., & Gressard, C. F. (1983). Athletic participation: Its relationship to student development. *Journal of College Student Development*, 22, 236-239.

- Tao, S., Dong, Q., Pratt, M. W., Hunsberger, & Prancer, S. M. (2000). Social support: Relations to coping and adjustment during the transition to university in the People's Republic of China. *Journal of Adolescent Research, 15*, 123-144.
- Whittall, N. R., & Orlick, T. D. (1978). Sport Satisfaction Inventory. In G. C. Roberts and K. M. Newell (Eds.), *Psychology of motor behavior and sport – 1978* (pp. 144-155). Champaign, IL: Human Kinetics Publishers, 1979.
- Wintre, M. G., & Yaffe, M. (2000). First-year students' adjustment to university life as a function of relationship with parents. *Journal of Adolescent Research, 15*, 9-37.
- Wintre, M. G., Yaffe, M., & Crowley, J. (1995). Perception of Parental Reciprocity Scale (POPRS): Development and validation with adolescents and young adults. *Social Development, 4*, 129-148.

TABLE 1.

Descriptive Statistics (N = 48)

Variable	M	SD
LESCA	20.63	11.36
SSS	89.73	17.42
POPRS-GS	23.06	2.08
Roommate relationship	9.79	3.73
Sport satisfaction	38.96	9.53
AIMS	38.52	6.26
SACQ	392.44	60.40

Note. LESCA = Life Events Scale for Collegiate Athletes; SSS = Social Support Survey; POPRS-GS = Perception of Parental Reciprocity Scale-General Scale; AIMS = Athletic Identity Measurement Scale; SACQ = Student Adaptation to College Questionnaire total score.

TABLE 2.

Pearson-Product Moment Correlation Coefficients Among Predictor and Criterion Variables

	2	3	4	5	6	7
1. POPRS-GS	-0.23	-0.14	-0.00	0.26	-0.12	0.13
2. LESCA		0.49*	-0.06	0.26	0.02	-0.07
3. AIMS			0.12	0.05	0.20	0.09
4. Sport satisfaction				0.17	0.01	0.47*
5. Roommate relationship					-0.04	0.46*
6. SSS						0.01
7. SACQ						- -

* $p < .05$

Note. POPRS-GS = Perception of Parental Reciprocity Scale - General Scale; LESCA = Life Events Scale for Collegiate Athletes; AIMS = Athletic Identity Measurement Scale; SSS = Social Support Survey; SACQ = Student Adaptation to College Questionnaire total score.

TABLE 3.

Multiple Regression Analysis Predicting Adjustment to College

Predictors

	Total R^2	F	F_{change}	\hat{a}
Step 1	.43	4.74*	4.74*	
POPRS-GS				-0.10
LESCA				-0.27
AIMS				0.11
Sport satisfaction				0.41*
Roommate relationship				0.50*
SSS				-0.02
Step 2	.48	4.09*	1.66	
AIMS X sport satisfaction				-0.12
SSS X LESCA				-0.20

* $p < .01$

Note. POPRS-GS = Perception of Parental Reciprocity Scale - General Scale; LESCA = Life Events Scale for Collegiate Athletes Total Score; AIMS = Athletic Identity Measurement Scale; SSS = Social Support Survey.

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