

Academic Athletic Journal

The official Publication of the
National Association of Academic
Advisors for Athletics



Vol. 11, No. 2
ISSN 0897-165X

National Association of Academic Advisors for Athletics

Guidelines for Authors	4
Editor's Statement	6
Warming Up	
Building Relationships: Support Services Personnel and Collegiate Coaches	8
Brian J. Bartolini	
Articles	
Female College Athletes and Osteoporosis: Strategies for Prevention and Treatment	12
Lori W. Turner, Min Qi Wang, Debra Huggins Schade, LeaVonne Pulley, R. Carl Westerfield	
A Comparison of Professional Sports Career Aspirations Among College Athletes	20
Gary A. Sailes	
Knowledge of AIDS and Risky Sexual Behaviors Among Athletes	29
Brian D. Butki, Mark B. Andersen, Steven R. Heyman	
Aiding the Transition to College: A Peer Mentoring Program for First-Year Student-Athletes	37
Timothy J. Morrissey, Jennifer L. Helfrich	
Membership and Subscription Information	48

Submission Guidelines for the Academic Athletic Journal

Audience

The primary audience of the *Academic Athletic Journal* is the membership of the N4A, that is, professionals providing counseling, life skills, and academic support services to student-athletes.

Purpose

The primary purpose of the journal is to assist its readers in providing the best possible counseling, advising, and life skills services to student-athletes. Toward that end, articles should add new knowledge, challenge existing opinion, and/or explain the implications of research. The arguments should be well-grounded in theory or research and clearly related to practice. Articles should be original and stimulating, written in a clear and concise style. Where applicable, authors should strive for methodological and statistical soundness, while avoiding unnecessary technical excursions.

Subject Matter

Relevant topics include, but are not limited to, the following: historical overviews of topics related to student-athletes; reviews of publications related to student-athletes; practical applications of theoretical or research-based conclusions; and research on student-athletes, including a full discussion of results and implications.

Do not submit a manuscript that has been previously published, is scheduled for publication elsewhere, or is being considered for publication elsewhere.

Review Process

Manuscripts will be reviewed through the blind review process by at least three members of the editorial board. Their comments will be sent to the authors along with recommendations for acceptance, rejection, or revision.

Manuscript Format and Style Guidelines

Manuscripts should be prepared utilizing the format and style described in the fourth edition of the American Psychological Association *Publication Manual*. Articles should be 1250-5000 words in length (i.e., roughly 5-20 pages of typed, double-spaced text) with ample margins for comments. Amplify the text with appropriate headings/subheadings, figures, and reference citations. The references and all figures and tables should be typed on separate pages in accordance with the APA *Publication Manual*. Submissions that deviate substantially from *Publication Manual* format will be returned to the authors.

Authors should avoid sexist language at all times and terms such as subject when describing research participants.

Manuscripts must include the following:

- (1) A separate title page with the names and institutional affiliations of the authors.
- (2) An abstract of 50-100 words that briefly summarizes the major points of the paper. The abstract should be typed on a separate page and appear after the title page.
- (3) A brief biographical sketch for each author. Sketches may be combined on one page, but must appear on a page separate from manuscript text.
- (4) A cover letter briefly describing the nature of the manuscript. Include relevant telephone and fax numbers and electronic mail addresses.

Articles may be submitted at any time; however for consideration for the fall issue they should be submitted no later than July 1, and for the spring issue no later than January 1.

Submit the original manuscript and three copies to: Eric Denson, Ph.D., Department of Intercollegiate Athletics, Graves Building Box 354070, University of Washington, Seattle, Washington 98195-4070.

Upon final acceptance of the manuscript for publication, authors should provide a copy of the final draft and the electronic version of the manuscript on computer diskette, formatted for Macintosh. Please do not submit diskettes prior to final acceptance.

Editor

Eric L. Denson
University of Washington

Editorial Board

Brian Bartolini
Southern Illinois University-Carbondale

Ralph Bayard
University of Washington

Britt Brewer
Springfield College

Allen Cornelius
University of Hartford

Jill DiMichele
Arizona State University

Ed Etzel
West Virginia University

Trina Kudlacek
University of Maine

Ursula Walsh
National Collegiate Athletic Association

Editor's Statement

Eric L. Denson
University of Washington

Having survived my first issue as editor, I am pleased to present the Fall 1996 issue. Based on the feedback I have received, it appears that the changes that were seen in the Spring issue have been favorably received. Most changes result in a few glitches and the Spring issue was no exception. Fortunately, the only major one was printing the wrong date on the cover of the entire run. As good as the Spring 1995 issue was, to have it come out twice would not have been a great idea.

I would like to correct a very obvious and regrettable omission from the Spring 1996 issue. Dr. Ed Etzel's name was inadvertently left off of the list of members of the editorial board. This was not, I have assured Ed, our way of telling him his services are no longer needed. To the contrary, Ed has provided valuable and detailed feedback on a number of submissions, and I look forward to his continued contributions as a member of the board. Special thanks are due to Kathy Lyons who is leaving the board after serving the *AAJ* for a number of years as editor and editorial board member. Kathy was a tremendous resource during the transition, and on behalf of the board I wish her all the best in her new position. I want to express my gratitude to all of the board's members for generously sharing their valuable time. They have been of immense help to me and to those submitting manuscripts. This is an excellent opportunity to introduce the newest members of the editorial board, Drs. Allen Cornelius of the University of Hartford and Trina Kudlacek of the University of Maine, and Jill DiMichele of Arizona State University and to thank the following individuals who served as ad hoc reviewers during this year: Drs. Janice Jordan and Leslie Orysh of the University of Delaware, and Debra Vinci of the University of Washington.

There are two changes you will notice in this issue of the journal. The first, a small change, is the addition of volume numbers to make referencing easier and to bring the *AAJ* in line with most accepted reference formats. In order to prevent new readers from mistakenly assuming that this is a new journal, the numbering system will commence with Volume 11, Number 2 (this issue). Beginning with this issue you will notice a new feature that will occasionally appear in the journal. A new column, *Warming Up*, will present brief, practical solutions to everyday concerns faced by professionals in our field. In *Warming Up*, the focus is on providing a forum for ideas other professionals have found to be useful. The first installment of *Warming Up* is a contribution by Brian Bartolini, who offers strat-

egies for enhancing the communication between support service personnel and coaches. I welcome your feedback about *Warming Up*, and encourage readers to submit brief manuscripts discussing solutions to issues of concern to those who counsel and advise student-athletes.

I would like to close by asking you, the readers and members of N4A, to again consider submitting a manuscript for publication. I know that many will cite legitimate reasons for not doing so, such as adding one more activity to an already overcrowded day, or concerns about not doing research that is worthy of publication. I believe, however, that all of us in this field are involved in programs and activities that others will benefit from hearing about, whether they be formal research on student-athletes, or services we offer that prove valuable. Perhaps a master's thesis or doctoral dissertation contains the germ of an article. The N4A clearly benefits from the willingness of its members to share time, ideas, and resources with each other. I am asking that the sharing process be extended to include writing for the *AAJ*. Aside from the organizational benefits that come from writing for the professional community, publications look good on one's vita, and certainly help our image—individually and collectively—in the eyes of those outside of the organization. Although the writing process is not an easy one, I believe the benefits of engaging in it far outweigh any difficulties.

Warming Up

Building Relationships: Support Services Personnel and Collegiate Coaches

Brian J. Bartolini
Southern Illinois University at Carbondale

One of the most challenging situations facing those who work in student-athlete support services is: How do I build a successful working relationship with the coach? As providers of support services to student-athletes, we must recognize the fact that the real "power" over student-athletes is held by coaches, who extend scholarship offers and control playing time. Without the support of the coach, we often lose some of our ability to guide, instruct, and ultimately help student-athletes. Unfortunately, counselors/advisors often speak of the "nightmare" their coaches are, and how impossible it is to work with them in support of student-athletes.

It might benefit support services providers to take a "time-out" from blaming coaches for difficult working conditions—after all, we can't control the coach's behavior. We may be able to influence her or him, but we will never be in a position to dictate the actions, choices, and decisions that person makes. The principles of control theory and reality therapy suggest that the area we do have control over is our own behavior and that needs to be our focus (see Bartolini, 1994; Glasser, 1989).

The point of this short article is to provide some direction as to what *we*—as support services personnel—can do to build and improve our relationships with the coaches at our collegiate institutions. Communicating, attending practices and competitions, providing coach-specific services, and selling your program are four of the ways relationships with coaches can be enhanced.

Communicate

We often say we need to do a better job of communicating with others, but rarely do we execute as well as we would like. We must communicate with coaches not only when it's absolutely necessary, but also when it's simply a courtesy. Unexpected and nonessential but courteous communication can be an important instrument of goodwill. When coaches do a nice job with something, whether it's helping to get a certain student-athlete to study table or winning a big game, let them know that you appreciate their efforts. Always offer more positive rein-

forcement than negative—coaches shouldn't always cringe when they see us walking down the hall or hear our voices on the phone.

Involve coaches in the process of helping their student-athletes get a quality education—even if it appears they don't want to get involved! Send them weekly (or bi-weekly, monthly) support services updates for their teams. You could include the results of academic progress reports that were returned by instructors, make notes of the interactions (when appropriate) you had with particular student-athletes, chart study table attendance and tutor utilization, and/or simply write down your impressions of the progress individual student-athletes are making in terms of their education. Many additional bits of information could be included in the update, but the essential point remains the same: Communicate with your coaches on a personal as well as professional level; keep your coaches consistently informed using a combination of in-person, written, and verbal contacts; involve them in the process of developing their *student-athletes*.

Attend Practices and Competitions

Not only is it important for support services personnel to attend practices and competitions for the benefit of the student-athletes, but also it makes a positive impression on the coaches. Even though our focus is on academics and career and personal development, we must acknowledge and respect that part of student-athletes and coaches that loves sports. Sport is a large part of their total being, and to be more effective in our jobs, we need to recognize and support that. If we don't already, we must begin to view attending practices and games as an integral part of our work. The excuse that we are too busy to attend is not acceptable. Going to the women's field hockey game is probably just as important as the tasks we are performing in our offices at that same time.

Provide Specific Services to Coaches

Just as we provide services to student-athletes, we also need to provide them to coaches. Offer coaches workshops on topics relevant to them. For example, have a public relations professional come in to speak about dealing with the media or ask a sports psychologist to teach a seminar on developing leadership or mental skills in athletics. If we can't offer these workshops ourselves, many times it's not expensive or time-consuming to find someone who can. In fact, the appropriate person may be on your campus already, working as an instructor or studying as a graduate student. In addition to workshops, it's helpful to offer materials such as research articles, newsletters, videos, and newspaper clippings to coaches that are applicable to their own professional knowledge and development. For example, you could review an article and provide coaches a summary of the salient points, as well as suggestions for turning theory into practice with their own team. If you complete one of these reviews each month, and add some clever formatting, you have a useful newsletter to present to your coaches.

Sell Your Program

Always keep in mind that foremost on the coach's agenda is one central goal: winning games. Just as counselors and advisors are evaluated by the quality (and quantity) of educational and personal support they offer student-athletes, coaches are evaluated to a great extent on their won-lost records. Use every available opportunity to let coaches know how the services you provide can help them fulfill their professional goals. For example, coaches are beginning to realize how valuable you and your program can be during recruiting—especially the favorable impressions parents/guardians may form of the school as a result of your meeting with them. Also, no matter how productive a certain player is in their sport, they are not helping the coach win games if they are ineligible to compete. Obviously, eligibility is related to academic performance and progress towards a degree—two areas in which our services can be extremely meaningful and helpful.

Other examples of effectively selling your program would be to develop a brochure describing your services or offer story ideas to sports information and local media regarding special student-athletes. You could ask student-athletes who work with you on a regular basis to provide testimonials on how you've helped them and present those to the coaches. Remember, three things are particularly important in making a sale: price, service, and value. Demonstrate the quality of your program to coaches along those dimensions.

Stress to coaches the fact that working together will prove most effective in order for each of the vested parties to meet its goals. Maybe then, counselors, coaches, parents, and student-athletes can agree that enhancing educational and personal development as well as winning games are not mutually exclusive objectives in the context of university life.

Conclusion

Without question, utilizing these suggestions whenever possible does not ensure perfect relationships with coaches; sometimes it may be appropriate and necessary to address your concerns in writing to the coach as well as members of the athletic administration (including the athletic director, senior women's administrator, etc.). However, if we strive to communicate more effectively, attend practices and games, provide services designed specifically for coaches, and sell our programs, we dramatically improve our chances of developing strong relationships with the coaches as well as becoming more successful professionals in an extremely worthwhile profession. On behalf of the student-athletes, let's take control over our own behavior and work hard at nurturing and developing our relationships with our partners in coaching.

References

- Bartolini, B. J. (1994). Reality therapy in athletic counseling: Applications for college student-athletes. *Academic Athletic Journal*, Fall, 1-10.
- Glasser, W. (1989). *Control theory in the practice of reality therapy: Case studies* (pp. 1-15). New York: Harper & Row.

Author Note

Brian Bartolini is an academic coordinator for athletics at Southern Illinois University-Carbondale. He received his master's degree in athletic counseling from Springfield (MA) College in 1994. Correspondence should be directed to Brian Bartolini, 118 Lingle Hall/SIU Arena, Southern Illinois University, Mailcode 6620, Carbondale IL 69201. Telephone: (618) 453-5486; electronic mail may be sent to: barto@siu.edu.

Female College Athletes and Osteoporosis: Strategies for Prevention and Treatment

Lori W. Turner
Min Qi Wang
Debra Huggins Schade
University of Alabama

LeaVonne Pulley
University of Alabama-Birmingham

R. Carl Westerfield
University of Alabama

For some female athletes, a risk exists for the development of one or more of the medical disorders that comprise the female athlete triad: the related conditions of disordered eating, amenorrhea, and osteoporosis. These disorders may lead to significant morbidity and a high rate of mortality. The female college athlete, driven to excel in her sport and pressured to fit a thin athletic image, is at risk for the development of premature osteoporosis. College counselors and advisors can be instrumental in the prevention and treatment of these problems in female college athletes.

Osteoporosis is one of the most prevalent diseases of aging, affecting more than 25 million people in the United States (Tostoi & Leven, 1992). Each year more than 1.3 million people suffer bone breaks in their hips, backs, and wrists due to osteoporosis (National Osteoporosis Foundation, 1995). Women are most often the victims of this type of osteoporosis, six to one over men (Tostoi & Leven). Osteoporosis develops without warning. People cannot tell that they are losing bone tissue until it is too late; then dramatic symptoms suddenly emerge. As hypertension is known as the silent killer, osteoporosis is the silent thief, slowly and insidiously robbing the skeleton of its banked resources.

Osteoporosis often first becomes apparent when someone's hip suddenly gives way. Even the slight shock of stepping down off a curb may be enough to shatter a bone made porous by loss of minerals. The break is not clean; the bone explodes into fragments so numerous and scattered that they cannot be reassembled.

Bone is composed of lacy, calcium-containing crystals. These crystals give up calcium to the blood when the day's supply from the diet runs short, and they take up calcium again when the dietary supply is plentiful. Bone is generously supplied with blood vessels and is metabolically active. It is sensitive to hormones that govern day-to-day deposits and withdrawals of calcium, and it readily gives up minerals whenever blood calcium needs replenishing. Losses of bone start becoming significant for men and women in their 30s, although losses can

occur whenever calcium withdrawals exceed deposits.

A factor that weighs in the balance of bone deposits and withdrawals is calcium nutrition in childhood and young adulthood. Without sufficient calcium, peak bone mass will be less than optimal (Bronner, 1994). Scientists agree that bone strength later in life depends on how well the bones are developed and maintained during youth, and that adequate calcium nutrition during the growing years is essential to achieving optimal peak bone mass (Heaney, 1993). It is this agreement on which the Committee on Dietary Allowances bases its recommendations of 1200 milligrams of calcium per day for everyone 11 through 24 years of age.

A low calcium uptake into bones during childhood and youth leads to susceptibility to osteoporosis later. Nutritional causes of low calcium uptake early in life include deficiencies of vitamin D and calcium. Unfortunately, few females meet the Recommended Dietary Allowance (RDA) for calcium during their bone-forming years. Even if they do meet the RDA, it may not be high enough to achieve the maximum bone mass (Holbrook, Barrett-Conner, & Wingard, 1988). This may mean that most female adolescents start their adult lives with less than optimal bone density. This problem is a special concern for female athletes as they often have insufficient calcium intakes and pronounced nutrient needs.

The Special Problem of the Female Athlete

Many young athletes restrict calcium and energy intakes to improve performance, enhance the aesthetic appeal of their performance, or meet weight guidelines of their specific sports (Wilson, 1994). The increasing incidence of abnormal eating habits among athletes is causing concern, especially for female athletes.

Many female athletes appear healthy but are in fact at risk of developing a potentially fatal triad of medical problems: disordered eating, amenorrhea, and osteoporosis. These three associated disorders are called the female athlete triad (Skolnick, 1993). These disorders may lead to significant morbidity, and even to a high rate of mortality (Palla & Litt, 1988). The young female athlete, driven to excel in her sport and pressured to fit a thin athletic image, is at risk for the development of disordered patterns of eating (Brownell, Steen, & Wilmore, 1987). These patterns often lead to menstrual dysfunction (DeSouza & Metzger, 1991) and subsequent premature osteoporosis (Drinkwater, Bruemner, & Chestnut, 1990). Alone, each disorder is of significant medical concern, but when all three components of the triad are present, there is the potential for a more serious impact on health and mortality. In addition, there may be lifelong psychological problems resulting from any one or combination of the female athlete triad disorders.

Another factor affecting this situation is the illusion of immortality held by many young, healthy individuals, including college students. Young people often do not feel vulnerable to even dangerous health problems (see Butki, Andersen, & Heyman, this volume). This indifference creates a barrier that may interfere with educational efforts as these students are likely to regard osteoporosis as a distant issue. One study of young women demonstrated that they were, indeed, aware of the risks of osteoporosis; however, they were unconcerned about the specific potential harm to them as individuals (Anderson, Auld, & Schiltz, 1996).

Disordered Eating

Disordered eating refers to the spectrum of abnormal patterns of eating, including behaviors such as bingeing, purging, or both; food restriction; prolonged fasting; use of diet pills, diuretics, or laxatives; or other abnormal eating behaviors; thought patterns such as preoccupation with food; dissatisfaction with body; fear of becoming fat; and a distorted body image (Ratnasuriya, Eisler, & Szmakler, 1991). At the extreme, disordered eating includes both anorexia nervosa and bulimia nervosa, but not all athletes with abnormal or pathological eating behaviors meet the official criteria for these disorders. Still, their eating behaviors and thought patterns are abnormal enough to incur the risk of developing osteoporosis and the other serious endocrine, metabolic, skeletal, and psychiatric disorders observed in these conditions (Nelson, Fisher, & Catsos, 1986; Warren, Stanton, & Blessing, 1990).

Some authorities have suggested that at least part of the reason many athletic women engage in self-destructive eating behaviors is because they and their coaches have adopted unsuitable weight standards. These harmful weight standards often result from a "win-at-all-cost" attitude held by many coaches and often reinforced by parents. Coaching strategies using strict weight standards, such as daily or frequent weigh-ins, seem to be common themes in the history of the athlete who develops disordered eating patterns. The use of punitive measures or negative reinforcement for weight gain or poor performance is also a common predisposing factor to the development of pathogenic forms of eating or food restriction (Nattiv, Agostini, Drinkwater, & Yeager, 1994). Society also contributes to the occurrence of disordered eating by supporting and rewarding athletes who excel and who fit the image of what it thinks the athlete should look like. The image is often a small, thin, petite athlete in certain sports.

The prevalence of disordered eating in young female athletes has been reported at 15% to 62% (Sundgot-Borgen, 1994), and it is believed that this reported risk underestimates the actual risk. Much of what is available is from self-report questionnaires. Sundgot-Borgen has identified some of the risk factors for eating disorders in young women athletes. Dieting at an early age is one risk factor. Many young women begin dieting because their coaches recommend they lose weight. These women may perceive weight loss to be a requirement for peak performance, and are therefore driven to lose as much weight as possible. Unsupervised dieting is another risk factor: The restrictive diets many athletes adopt fail to meet the high energy needs of athletes in training.

Amenorrhea

Amenorrhea (secondary) refers to the absence of at least three to six consecutive menstrual cycles in women who have already begun menstruating. A spectrum of menstrual irregularities often is seen in the female athlete. Contrary to previous notions, amenorrhea is not a normal adaptation to strenuous physical training; it is a symptom of a problematic situation (Skolnick, 1993). Amenorrhea is characterized by low blood estrogen, infertility, and often bone mineral losses.

Bone swindles rapidly when the hormone estrogen diminishes and menstruation ceases. When young women experience reduced estrogen secretion and cease

menstruating, they too, lose bone rapidly. The combination of irregular or absent menstrual periods and low body weights explains much of the bone loss seen in young athletes (Drinkwater et al., 1990).

The prevalence of amenorrhea among premenopausal women in the United States is about 2 to 5 percent overall, but among female athletes, it may be as high as 66 percent (Ottis, 1992; Yeager, 1993). Some research seems to indicate that decreased energy intake and depleted body fat contribute to amenorrhea (Benson, 1989). Other studies indicate that percentage of body fat is not critical for normal menstruation in athletes (Baer & Taper, 1991). However amenorrhea develops, amenorrheic athletes are more likely to suffer bone loss than other women. The female athlete seems to be most vulnerable to developing these problems during adolescence and young adulthood. This time-sensitive period is crucial because skeletal integrity is at risk, as the most rapid growth and development of the skeleton occurs during this time (Recky, Davies, & Hindus, 1992).

Osteoporosis

Osteoporosis in this group of young female athletes causes premature bone loss and inadequate bone formation, resulting in low bone mass, microarchitectural deterioration, increased skeletal fragility, and an increased risk of fracture (Cann, Martin, & Genant, 1984; Loucks, 1990). Once menstrual dysfunction develops, estrogen levels drop to a postmenopausal level and there is a rapid loss of bone in the spine (Feicht & Johnson, 1978). The spinal density of some young female athletes is similar to that of women in their 70s and 80s and may never return to normal (Nattiv et al., 1994). These athletes are at increased risk for all stress fractures including serious fractures of the pelvis, hip, and spine (Lloyd & Triantafyllon, 1986). Studies suggest that premature osteoporosis that occurs in the young female athlete and may be irreversible even with calcium supplementation, resumption of menses, or estrogen replacement therapy (Cann et al., 1984; Prior, Vigna, Schechter, & Burgess, 1990).

Osteoporosis increases susceptibility to stress fractures and bone breakage during physical activity. In general, weight-bearing activity, dietary calcium, and the hormone estrogen protect against bone loss (Edelstein & Barrett-Conner, 1993), but in women with disordered eating and amenorrhea, strenuous activity may impair bone health. The combination of a too-slender body, severely restricted energy intake, extreme daily exercise, and the absence of menstruation reliably predict bone loss (Drinkwater et al., 1990). One study found that dancers with recent stress fractures had low body weights, a high incidence of eating disorders, and ate diets low in fat and energy (Frusztajer, 1990). Vigorous training combined with low food energy intakes and other life stresses seem to trigger amenorrhea and promote bone loss.

Proposed Strategies

The significant health problems occurring as a result of the female athlete triad have led to the definition of the scope of the problem on national and international levels. Through national educational forums and communication with members of the United States Congress, problems of the female athlete triad have

been recognized. Legislation in the area of disordered eating has been instituted as part of the Women's Health Equity Act of 1993, making this a priority item regarding women's health issues. The Eating Disorders Information and Education Act has been incorporated with the purpose of providing information and education on the prevention and treatment of eating disorders and subsequent medical problems (American College of Sports Medicine, 1992).

The American College of Sports Medicine's (1992) Ad Hoc Task Force on Women's Issues in Sports Medicine and the Women's Health Equity Act have designed a global prevention and treatment plan to address strategies for future prevention and treatment of the female athlete triad disorders. Proposed strategies for prevention include widespread education of health care professionals, athletes, coaches, parents, and members of society about this triad of disorders and the harmful consequences that result; and identification of those at risk of developing the female athlete triad. Proposed treatment strategies include:

1. Screening of athletes to facilitate early treatment of these problems before they escalate to a point of causing excessive physical and emotional harm.
2. Encouraging amenorrheic athletes to consume at least 1500 milligrams of calcium each day and multivitamin-mineral supplements at RDA levels.
3. Encouraging athletes to consume well-balanced diets that contain sufficient food energy to support activities.
4. Encouraging athletes to modify activity so that they expend no more energy than they consume.
5. Encouraging athletes to use liquid supplementation when they cannot achieve adequate intake with solid food.
6. Encouraging athletes to engage in interactive nutrition counseling as an ongoing process.
7. Encouraging female amenorrheic athletes to begin hormone replacement therapy (if deemed appropriate by the physician).

Implications for Counselors

Counselors and advisors working with student athletes can be valuable in addressing this problem. They need to be aware that the key to the diagnosis of any one or all components of the female athlete triad is an increased awareness of the existence of the problem and of the presenting signs and symptoms (Nattiv et al., 1994). Counselors and advisors can play key roles in identifying and educating those at risk. They should consider all female athletes to be potentially at risk for the development of the female athlete triad of disorders (Nattiv et al.; Yeager, 1993). Women involved in sports in which low body weight and a lean physique is considered an advantage (gymnastics, figure skating, ballet dancing, distance running) appear to be most at risk, especially in the elite or highly competitive levels. Judging for some sports can be subjective and may be influenced by height, weight, age, and body type. Athletes in individual sports seem to be at higher risk than athletes in team sports. In addition, some athletes do not have the genetics to attain the presumed "ideal" body type of their sport. This sport-athlete mismatch can place an athlete at tremendous risk for problems of the athlete triad. (Risk factors for this triad of disorders are summarized in Table 1.)

TABLE 1
Risk Factors for the Female Athlete Triad

- Being at a young age (adolescence or young adulthood).
- Feeling pressure to excel at a chosen sport.
- Focusing on achieving or maintaining a "ideal" body weight or body fat percentage.
- Adopting unsuitable or strict weight standards from coaches or parents.
- Participating in endurance sports or competitions that judge performance on aesthetic appeal such as gymnastics, figure skating, or dance.
- Participating in individual sports.
- Being involved in a sport on an elite level.
- Possessing a "win-at-all-cost" attitude.
- Experiencing punitive coaching strategies, especially regarding body weight.
- Being involved in a sport that society expects and rewards a thin body image.
- Undertaking medically unsupervised dieting practices.

Counselors and advisors are in a unique position to screen and educate because they have the opportunity to establish rapport with college athletes. During counseling sessions, they can ask questions to screen the athlete for disordered eating, amenorrhea, or other patterns of menstrual irregularity, as well as inquire about history of stress fractures or other potentially pathologic fractures. Because of their frequent and varied interactions with student-athletes, counselors and advisors often hear about, and are in an advantageous position to address other issues such as life stressors, depressive symptoms, dissatisfaction with weight or body shape, training intensity, and other lifestyle behaviors. In addition, formal and informal counseling sessions present excellent educational opportunities.

Counselors and advisors can also play integral roles in informing members of the health care team regarding this problem. They can refer student athletes to appropriate health care providers (physicians, health educators, nutritionists, and psychologists) when they suspect a potential problem. In addition, through the referral process, they can inform administrators, athletic associations, coaches, athletic trainers, and parents regarding risks of the female athlete triad. Screening, referral, and education are key to prevention and treatment of the female athlete triad.

Educational efforts should be designed to communicate the following facts about performance (Nattiv et al., 1994):

1. That it is a fallacy to assume that continued weight loss will ensure improvement in athletic performance.
2. Muscle mass, as well as body fat, is lost during extreme dieting and performance may actually deteriorate.
3. Other side effects of poor nutrition such as fatigue, anemia, electrolyte abnormalities, and depression can also contribute to poor athletic performance.

When educating college athletes about the potential harmful effects of the female athlete triad, the wise counselor will be aware that these young individu-

als are in the midst of a significant developmental period characterized by the illusion of immortality. Educators are likely to encounter indifference as young adults are likely to regard osteoporosis as a distant issue. Focusing on how this harmful condition can impair athletic performance in the present is more likely to be well received than stressing solely the harmful effects of osteoporosis in the future.

References

- American College of Sports Medicine. (1992). The female athlete triad: Disordered eating, amenorrhea, osteoporosis: call to action. *Sports Medicine Bulletin*, 27, 4.
- Anderson, J. E., Auld, G. W., & Schiltz, C. M. (1996). Young women and osteoporosis: Aware but unconcerned. *Journal of Wellness Perspectives*, 12 (2), 63-69.
- Baer, J. T., & Taper, L. J. (1991). Amenorrheic and eumenorrheic adolescent runners: Dietary intake and exercise training status. *Journal of the American Dietetic Association*, 92, 89-91.
- Benson, J. E. (1989). Relationship between nutrient intake, body mass index, menstrual function, and ballet injury. *Journal of the American Dietetic Association*, 89, 58-63.
- Bronner, F. (1994). Calcium and osteoporosis. *American Journal of Clinical Nutrition*, 60, 831-836.
- Brownell, K. D., Steen, N., & Wilmore, J. H. (1987). Weight regulation practices in athletes: Analysis of metabolic and health effects. *Medicine and Science in Sports and Exercise*, 19, 546.
- Cann, C. E., Martin, M. C., & Genant, H. K. (1984). Decreased spinal mineral content in amenorrheic women. *Journal of the American Medical Association*, 251, 626.
- DeSouza, M. J., & Metzger, D. A. (1991). Reproductive dysfunction in amenorrheic athletes and anorexic patients: A review. *Medicine and Science in Sports and Exercise*, 23, 995.
- Drinkwater, B. L., Bruemner, B., & Chestnut, C. H. (1990). Menstrual history as a determinant of current bone density in young athletes. *Journal of the American Medical Association*, 263, 545-548.
- Edelstein, S. L., & Barrett-Connor, E. (1993). Relation between body size and bone mineral density in elderly men and women. *American Journal of Epidemiology*, 138, 160-169.
- Feicht, C. B., & Johnson, T. S. (1978). Secondary amenorrhea in athletes. *Lancet*, 2, 1145.
- Frusztajer, N. T. (1990). Nutrition and the incidence of stress fractures in ballet dancers. *American Journal of Clinical Nutrition*, 51, 779-783.
- Heaney, R. P. (1993). Nutritional factors in osteoporosis. *Annual Reviews of Nutrition*, 13, 287-316.
- Holbrook, T. L., Barrett-Connor, E., & Wingard, D. L. (1988). Dietary calcium and risk of hip fracture: 14-year prospective population study. *Lancet*, 12, 1046-1049.
- Lloyd, T., & Triantafyllou, S. J. (1986). Women athletes with menstrual irregularity have increased musculoskeletal injuries. *Medicine and Science in Sports and Exercise*, 18, 374.
- Loucks, A. B. (1990). Effects of exercise training on the menstrual cycle: Existence and mechanisms. *Medicine and Science in Sports and Exercise*, 22, 275.
- National Osteoporosis Foundation. (1995). *A Status Report on Osteoporosis: The Challenge to Midlife and Older Women*. (Older Women's League, Osteoporosis Fact Sheet).
- Nattiv, A., Agostini, R., Drinkwater, B., & Yeager, R. K. (1994). The female athlete triad: The inter-relatedness of disordered eating, amenorrhea, and osteoporosis. *Clinics in Sports Medicine*, 13, 405-417.
- Nelson, M. E., Fisher, E. C., & Catsos, P. D. (1986). Diet and bone status in amenorrheic runners. *American Journal of Clinical Nutrition*, 43, 910.
- Ottis, C. L. (1992). Exercise-associated amenorrhea. *Clinics in Sports Medicine*, 11, 351.
- Palla, B., & Litt, I. F. (1988). Medical complications of eating disorders in adolescents. *Pediatrics*, 81, 613.
- Prior, J. C., Vigna, Y. M., Schechter, M. T., & Burgess, A. E. (1990). Spinal bone loss and ovulatory disturbances. *New England Journal of Medicine*, 323, 1221-1227.
- Ratnasuriya, R. H., Eisler, J., & Szmakler, G. I. (1991). Anorexia nervosa: Outcome and prognostic factors after 20 years. *British Journal of Psychiatry*, 158, 495.
- Recky, R. R., Davies, K. M., & Hindus, S. M. (1992). Bone gain in young adult women. *Journal of the American Medical Association*, 268, 2403.
- Skolnick, A. A. (1993). "Female athlete triad" risk for women. *Journal of the American Medical Association*, 270, 921-923.
- Sundgot-Borgen, J. (1994). Risk and trigger factors for the development of eating disorders in female elite athletes. *Medicine and Science in Sports and Exercise*, 26, 414-419.

- Tostoi, L. G., & Leven, R. M. (1992). Osteoporosis—The treatment controversy. *Nutrition Today* (July-August), 6-12.
- Warren, B. J., Stanton, A. L., & Blessing, D. L. (1990). Disordered eating patterns in competitive female athletes. *International Journal of Eating Disorders*, 9, 565.
- Wilson, J. H. (1994). Nutrition, physical activity and bone health in women. *Nutrition Research Reviews*, 7, 67-91.
- Yeager, K. K. (1993). The female athlete triad: Disordered eating, amenorrhea, osteoporosis. *Medicine and Science in Sports and Exercise*, 25, 775-777.

Author Notes

Lori W. Turner is a doctoral student in the Department of Health Studies at the University of Alabama. She has master's degrees in dietetics and nutrition, and in health education. She is a registered dietitian and author of a major college health textbook, *Life Choices—Health Concepts and Strategies*.

Min Qi Wang, Ph.D., is a professor in the department of Health Studies at the University of Alabama. Dr. Wang has extensive experience in conducting statistical analyses on large scale national databases. He has published extensively in many areas of health behavior including smoking, alcohol, nutrition, and physical activity.

Debra Huggins Schade is a doctoral student and research assistant in the Department of Health Studies at the University of Alabama. She has a master's degree in exercise physiology and is involved in research regarding body image in adolescents and young adults.

LeaVonne Pulley received her Ph.D. from the University of Texas. She is an assistant professor in the Department of Health Behavior at the University of Alabama at Birmingham School of Public Health. She has extensive experience in developing health behavior surveys and questionnaires. Her interests are survey research and media and community interventions.

R. Carl Westerfield received his Ph.D. from the University of Toledo. He is the area head and a professor in the Area of Professional Studies at the University of Alabama. In addition to his administrative responsibilities, he is actively involved in health education and promotion.

Correspondence regarding this article should be directed to Lori Turner, Department of Health Studies, University of Alabama, P.O. Box 870312, Tuscaloosa, AL 35487-0312; telephone: (205) 349-4958; electronic mail: LTURNER3@UA1VM.UA.EDU

A Comparison of Professional Sports Career Aspirations Among College Athletes

Gary A. Sailes
Indiana University

A sample of NCAA Division I male basketball and football student-athletes completed a questionnaire on their professional sport aspirations. Participants were classified by the variables of family income, race, year in school, grade point average, and athletic honors. Significant differences were found for year in school, race, and family income. African-American, high income, freshman, junior and fifth-year senior student-athletes were the most likely to aspire to participate in professional sports.

The glorification of professional athletes and professional sports in the United States appears to have a powerful effect on American youth, often creating unrealistic expectations about their chances of signing a professional sports contract (Coakley, 1993; Leonard, 1993). Moreover, the chance of a college athlete of ever signing a professional sports contract is less than 1% while the average career of the professional athlete is less than four years. By the time professional athletes reach the end of their sports careers, most other individuals may be just starting their careers (Coakley, 1993; Leonard, 1993).

African-American males are more likely to have African-American professional athletes as role models than their White counterparts. Edwards (1973) and Sailes (1984, 1987) have argued that holding professional athletes as role models has contributed, in part, to the disproportionate representation of African-American athletes in the three major professional sports (i.e., football, basketball, and baseball). The high number of successful African-American professional athletes has fueled young athletes' hopes of playing professional sports. Consequently, many African-American males have relied on sports for status and prestige more frequently than their White counterparts. It has been argued that this pattern is a response to institutional racism against African-Americans that has limited employment opportunities in other segments of American society (Edwards, 1973; Harris, 1993; Sailes, 1987, 1993). Moreover, success in sports has been a means for African-American males to generate self esteem and self-empowerment (Majors, 1990).

Despite the odds against it, members of the lower or working class are more likely to view sport as a vehicle for social and economic mobility (Oliver, 1980). Perceptions that few opportunities exist through traditional channels have contributed to the development and experiences of this compensatory value system (Rehberg & Cohen, 1975; Sailes, 1987). The majority of African-American scholarship student-athletes come from lower socioeconomic backgrounds (Coakley, 1993); therefore, it is reasonable to assume that race and class are variables which influence the sport socialization and value development of African-American males. Such socialization and value orientation encourage sport participation for reasons of social status and prestige (Majors, 1990; Sailes, 1984).

Rehberg and Cohen (1975) argue that the singular focus of sports participation to obtain professional sports status has overshadowed the desire for academic achievement, leading to poor academic achievement and low graduation rates. Sailes (1993) cites obsessive coaches and the business mentality of college athletic departments as important factors causing the lack of academic achievement among college student-athletes. Telander (1989, 1990a, 1990b, 1992) has noted that Division I college athletics serve as a farm system for professional sports and argues that student-athletes should be allowed to pursue professional sports without jeopardizing their college eligibility. College athletics likely serve as the focal point for professional sports recruitment.

By contrast, among high school student-athletes, sports contribute to physical, social, and educational development (Harris, 1993; Sabo, 1988). Coakley (1993) and Leonard (1993) found that student-athletes performed at higher levels in the classroom than their nonathlete peers. In addition, it was found that high school student-athletes believed that participation in high school athletics could possibly deliver educational, social, and life-skill benefits and opportunities that would facilitate the transition to purposeful productivity and full employment later on (Harris, 1993; Oliver, 1980). Moreover, high school athletes had higher aspirations to attend college, and parents took a greater interest in their offspring's socialization, when they were involved in high school sports. The desire to play professional sports was positive because it required participation in the college sports system which exposed the student-athlete to a higher level of scholarship and required academic eligibility (McElroy, 1981). With these considerations in mind, the present study sought to identify those male student-athletes most likely to aspire to participate in professional football or basketball.

Method

Participants

Questionnaires were forwarded to athletic academic advisors at 50 NCAA Division I institutions. The advisors were asked to administer the questionnaire to male student-athletes participating in basketball and football. A total of 390 student-athletes responded to the questionnaire (basketball, $n = 170$; football, $n = 210$). The participants were grouped according to their status on the following variables: family income, race, year in school, grade point average (GPA), and having received an honor for athletic achievement (see Table 1). The return rates for Hispanic ($n = 8$), Pacific Islander ($n = 0$), and Native American ($n = 2$) student-athletes were too small to consider for this investigation. The return rates for African-American ($n = 217$) and Caucasian ($n = 163$) participants were adequate to conduct a statistical analysis.

Instrumentation and Data Collection

A review of the literature failed to identify an instrument that met the specific needs of this particular investigation; therefore, an instrument was developed to address the questions of interest (see Appendix). The result was a 12-item questionnaire that was forwarded to members of the National Association of Aca-

demic Advisors for Athletics (N4A) who were employed at NCAA Division I institutions. A total of 50 schools were randomly selected from the N4A directory. Thirty-one schools responded for a return rate of 62%. It was felt this high return rate would eliminate any subsequent bias which might have existed with a lower return rate. Advisors were instructed to administer the instrument to the student-athletes they counseled. Participants were asked to complete the instrument when they showed up for advisement and were informed that their participation was voluntary. At no time was identifying information about the school or participants requested by or provided to the researcher.

Results

The data revealed that approximately half the sample (52%) planned to pursue a career in professional sports after college. Moreover, 95% of respondents chose to attend their college to increase their chances of being drafted into professional football or basketball. However, once on campus, only 44% of the sample felt attending that specific college would increase their chances of being drafted. Half of respondents felt their chances of being drafted were very good. Eighty-three percent indicated they would enter the professional sports draft before graduation if they were drafted early. Only 27% indicated they would return to school at some time in the future to complete their degree if they were drafted before graduation.

Analysis of variance (ANOVA) was used to examine significant differences between groups. The Tukey HSD procedure was employed to locate significant differences on multiple variables within the variable groups labeled *Year in School* and *Family Income*. It was hypothesized that student-athletes who received athletic achievement honors or awards would have the best chances of entering professional sports and therefore would have higher aspirations to play professional sports. However, there was no significant difference in the professional sports aspirations of outstanding athletes ($M = 15.4$, $SD = 2.97$) and those student-athletes who were not honored for athletic achievement ($M = 15.1$, $SD = 3.20$), $F = 1.16$, $p = .603$. It was also hypothesized that student-athletes with the highest professional sports aspirations would not be as serious about their academics and would have lower GPAs than those with lower aspirations. However, this investigation did not reveal a statistically significant difference between student-athletes who had an A or B GPA ($M = 12.9$, $SD = 3.92$) and student-athletes whose GPA was a C or below ($M = 13.6$, $SD = 3.45$), $F = 1.29$, $p = 1.30$.

Significant differences in professional sports aspirations among student athletes by race, family income, and by year in school were observed. Means and standard deviations are presented in Table 1. African-American student-athletes had significantly higher professional sports aspirations than their White counterparts, $F = 1.84$, $p < .001$. Surprisingly, upper income student-athletes had significantly higher professional sports orientations than middle and lower income student-athletes, $F = 5.90$, $p = .003$. This finding is in direct contrast to what had been hypothesized. Finally, freshmen, junior and fifth year senior student-athletes had significantly higher professional sports aspirations than sophomores and seniors, $F = 24.40$, $p < .001$.

Table 1
Comparison of Group Means

Variable	<i>n</i>	<i>X</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Family income					
Upper income	27	15.7	4.18	5.90	.003
Middle income	299	13.2	3.42		
Lower income	54	13.2	3.65		
Race					
African-American	217	13.8	3.94	1.84	.000
Caucasian	163	12.9	2.90		
Year in school					
Freshman	144	14.3	2.80	24.40	.000
Sophomore	72	12.1	2.95		
Junior	82	15.2	2.58		
Senior	64	10.6	3.94		
Fifth year	18	13.5	5.65		
Grade point average					
A or B	81	12.9	3.92	1.29	1.30
C or below	299	13.6	3.45		
Honors					
Yes	45	15.4	2.97	1.16	.603
No	335	15.1	3.20		

Discussion

While the data from this study are preliminary, they provide some insight into the pervasiveness of professional sports aspirations among a segment of male student-athletes participating in NCAA Division I basketball and football. It was not surprising to find that African-American student-athletes had significantly higher aspirations toward professional sports than their white counterparts. In examining the participation percentages of African-Americans and Whites in professional basketball and football, the overrepresentation of African-American professional athletes and their subsequent visibility may encourage African-American youth to fantasize more about the possibilities of their participation. Edwards (1973) suggested that perceived institutional racism and discrimination in American society disproportionately channeled African-Americans into the areas of entertainment and sports. Moreover, Lapchick (1988) reported that an African-American family is seven times more likely to push a male youth into sports than a White family.

Oliver (1980) found that lower income student-athletes were more likely to have higher aspirations than their middle and upper income counterparts. Thus, it was surprising to find in the present study that upper income student-athletes had higher aspirations regarding professional sports than middle and lower income student-athletes. The fact that this investigation had larger African-American participation numbers than Caucasians might account for the higher aspirations among

the participants from a higher income background. Table 1 indicates that the largest group was middle income. It is likely that the number of African-Americans is higher in that group. It is possible that undisclosed race dynamics within groups confounded the data and actually supported the contention that race was a factor in professional sports aspiration. Further study is needed to determine the validity of this contention.

It was interesting to note that student-athletes who did not distinguish themselves athletically had approximately the same aspirations to play professional sports as those student-athletes who did distinguish themselves with athletic honors. Student-athletes with little or no chance of playing professional sports—based on the assumption of a positive correlation between athletic honors and professional potential—held the same aspirations as those student-athletes who had the most viable chance of playing professional sport. It is reasonable to assume that the appeal of professional sports is very powerful; consequently, the self-evaluation of less successful student-athletes is neither realistic nor carefully considered.

Previous research suggests that athletes who trained hardest in order to enter the professional sports draft would be most likely to ignore their academic studies (Harris, 1993; McElroy, 1981; Rehberg & Cohen, 1975). Sailes (1993) asserted that elite student-athletes were required to maintain academic eligibility in order to compete to gain exposure to professional sports talent scouts. He found that elite student-athletes did little more than major in eligibility. That is, they did not study to receive grades higher than those required to maintain their athletic eligibility, at least a C average. Thus, it was hypothesized that student-athletes aspiring to play professional sports would earn lower grades than those not having like aspirations. The results of this investigation failed to support that hypothesis; student-athlete performance in the classroom was not related to level of professional sports aspiration. It appears that student-athletes earning good grades had aspirations to play professional sports similar to those of their counterparts earning lower grades.

Freshmen, juniors, and fifth-year seniors held higher aspirations to play professional sports in comparison to sophomores and seniors. Follow-up interviews with student-athletes at a large midwestern university produced the following analysis. Freshmen student-athletes entered college with high aspirations to play professional sports. It is likely they considered their first year on campus as the beginning of the professional sports process. By their sophomore year, still relegated to the practice or reserve squad, the futility of their situation began to appear and their aspiration to play professional sports began to diminish. However, it is likely that they started getting more playing time, and established a greater understanding of the dynamics of their sport—possibly becoming starters by their junior year—that would explain an increase in professional sports aspiration during that period. By their senior year, lower aspirations might be the result of the realization of their lesser playing ability compared to the elite class of more talented teammates. Finally, fifth-year seniors' increased professional sports aspiration could emanate from the realization that their talents were commensurate with professional sports opportunities outside the United States or that their skills

might provide the opportunity for temporary employment with a professional team during their summer training camp. This scenario is only hypothetical, and it is only one of many plausible explanations to determine the reasons for the differences year in school generated.

Conclusion

While this investigation is far from conclusive, it does illuminate some possibilities regarding the professional sports aspirations among a sample group of college student-athletes. Just as the pervasiveness of professional sports cannot be denied, its impact on American youth and our intercollegiate athletes cannot be ignored. The lure of professional sports can have serious consequences for contemporary student-athletes who tend to put "all of their eggs into one basket." Currently, approximately one fourth of NBA and one third of NFL athletes have completed their college degrees (Coakley, 1993). When their careers are over in three to four years, many professional athletes will likely have few marketable skills and will be disenfranchised and unemployable in mainstream society. They will exist on the periphery of employment opportunities, unable to compete with their degreed counterparts. The attraction of professional sports should be kept in proper perspective. Student-athletes should be encouraged to pursue their college degrees and develop marketable skills regardless of their ability. They should be informed that less than 1% of college student-athletes ever play professional sports and that the average professional sports career lasts only four years.

Student-athletes who distinguish themselves athletically should not be discouraged from pursuing professional athletics after college. If any group of aspiring athletes has the greatest potential for signing a professional sports contract, it is this group. However, they should be counseled to complete the degree to counter the hardships that might occur due to career ending injuries. In addition, regardless of their athletic talent, there are many athletes with equal or more ability. The competition for few positions in professional sport makes having alternative plans very important and crucial to future success in the job market.

The average career of the typical professional athlete is only four years. The typical professional athlete is 25 years old when his professional sports career ends. However, his youth, inexperience, and lack of practical work experience will place him at the bottom in the group of new entrants into the work force. Today's athletic academic advisor would be well advised to inform his or her male student-athletes that common sense dictates a more sober approach when considering post-college careers. One cannot continue to put all of one's eggs in a single basket when dealing with an industry that is as business-oriented as professional sports and treats its employees as replaceable parts. Advisors should also assist and encourage student-athletes to explore ways in which skills developed in athletics transfer to other work settings. Doing so helps student-athletes to prepare for post-athletic life while valuing and respecting the importance of their athletic experiences and aspirations. Maintaining minimum eligibility standards and majoring in eligibility to get a shot at professional sports simply is not smart.

Specific goal-setting and counseling led by common sense are the best guarantees for today's college student-athlete to be successful in a highly competitive and technically-oriented job market.

References

- Coakley, J. (1993). *Sport in society: Issues and controversies*. St. Louis: Mosby Publishers.
- Edwards, H. (1973). *Sociology of sport*. Homewood, IL: Dorsey Press.
- Harris, L. (1993). *The 1993 Lou Harris study on high school athletics*. Boston: Northeastern University Center for the Study of Sport in Society.
- Lapchick, R. (1988, November). *Race and sport in American culture*. Paper presented at the annual meeting of the North American Society for the Sociology of Sport, Boston.
- Leonard, W. (1993). *A sociological perspective of sport*. New York: Macmillan Publishers.
- Majors, R. (1990). Cool pose: Black masculinity and sports. In M. Messner & D. Sabo (Eds.) *Sport, men and the gender order: Critical feminist perspectives* (pp. 109-114). Champaign, IL: Human Kinetics.
- McElroy, M. (1981). A comparison of sport and nonsport occupational aspirations among disadvantaged youth. *Journal of Sport Psychology*, 3(1), 58-68.
- Oliver, M. (1980). Race, class, and the family's orientation to mobility through sport. *Sociological Symposium*, 2, 62-85.
- Rehberg, R. & Cohen, M. (1975). Athletes and scholars: An analysis of the compositional characteristics and images of these two youth cultures and categories. *International Review of Sport Sociology*, 10, 91-106.
- Sabo, D. (1988). *Report on minority sports participation*. New York: Women's Sports Foundation.
- Sailes, G. (1984). *Sport socialization comparisons among black and white adult male athletes and nonathletes*. Unpublished doctoral dissertation, University of Minnesota, Minneapolis.
- Sailes, G. (1987). A socio-economic explanation of black sports participation patterns. *Western Journal of Black Studies*, 11, 164-167.
- Sailes, G. (1993). An investigation of academic accountability among college student-athletes. *Academic Athletic Journal*, Spring, 27-39.
- Telander, R. (1989, October 2). Something must be done...The nation's universities are shamelessly exploiting the players and debasing themselves by perpetuating the myth of the 'amateur' athlete. *Sports Illustrated*, 71, 92-113.
- Telander, R. (1990a, April 23). Their moment has come: Letting college juniors into the NFL draft was overdue. *Sports Illustrated*, 72, 96.
- Telander, R. (1990b, November 12). Relaxing the ties that bind: At last, collegians may be able to test the pro waters. *Sports Illustrated*, 73, 94.
- Telander, R. (1992, May 4). Youth has been served: The NFL has been tapping underclassmen, and the results have been mostly for the good. *Sports Illustrated*, 76, 78.

Appendix

You are being invited to participate in a study to determine the professional sports aspirations of student athletes who play basketball or football at NCAA Division I colleges or universities. Your participation in this study is strictly voluntary. Please do not provide any information that may identify you or your school. Answer each question as accurately and completely as possible. Darken the appropriate space on your response sheet for each question. Thank you for your participation. If you have any questions regarding this study or would like a copy of the results, please contact Dr. Gary A. Sailes, Indiana University, at 812/855-0538.

1. What is your ethnic background?
 - a. African-American
 - b. Caucasian
 - c. Hispanic/Latin
 - d. Asian-American/Pacific Islander
 - e. Native American
 - f. Other
2. In what sport do you currently participate?
 - a. basketball
 - b. football
3. What is your current year in school?
 - a. freshman
 - b. sophomore
 - c. junior
 - d. senior
 - e. fifth year senior
4. Is your current grade point average above or below 2.5?
 - a. above
 - b. below
5. What is the current household income for your family?
 - a. \$60,000 and higher
 - b. \$25,000 to \$59,999
 - c. \$24,999 and below
6. Did you receive any of the following athletic honors while playing for your school? (select all that apply)
 - a. All-American
 - b. All-Conference
 - c. All-Tournament Team
 - d. Most Valuable Player
 - e. Player of the Year
 - f. Other
 - g. I received no honors

The remaining questions require your honest and most sincere opinions.
Please answer the following questions accordingly:

- | STRONGLY
AGREE | AGREE | UNDECIDED | DISAGREE | STRONGLY
DISAGREE |
|-------------------|-------|-----------|----------|----------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
7. After college, I plan to pursue a career as a professional athlete.
 8. I came to this college primarily to increase my chances of playing professional sports.
 9. Playing at this school has increased my chances of becoming a professional athlete.
 10. Based on my current sports skills and performance, my chances of becoming a professional athlete are pretty good.
 11. I plan to enter the professional sports draft before I graduate.
 12. If I leave college before graduating to enter the professional sports draft, I plan to return sometime to earn my degree.

Author Note

Gary A. Sailes, Ph.D., is an Associate Professor in the Department of Kinesiology at Indiana University. His professional interests in sport sociology focus on the intersection of ethnic studies and intercollegiate athletics. Correspondence regarding this article should be sent to Gary A. Sailes, Department of Kinesiology, School of HPER, Indiana University, Bloomington, IN 47405; via electronic mail: gsailles@indiana.edu.

Knowledge of AIDS and Risky Sexual Behaviors Among Athletes

Brian D. Butki
University of North Carolina at Greensboro

Mark B. Andersen
Victoria University

Steven R. Heyman
University of Wyoming

This research investigated sexual behaviors and AIDS knowledge for athletes and nonathletes. Nonathletes and athletes scored similarly on an AIDS knowledge test, but differed in reported risky sexual behavior. Athletes reported more behavioral changes after Magic Johnson's HIV-related retirement, but they still reported having more sexual partners per year than did nonathletes. The groups did not differ in condom use. By engaging in such risky behaviors, athletes may be more susceptible to sexually transmitted diseases like AIDS. Athletes (and nonathletes) continue to engage in unsafe sexual behaviors even while in possession of adequate knowledge of the risks. Implications for athletic counselors are discussed.

Acquired immunodeficiency syndrome (AIDS) (and HIV infection) is one of the most significant health risks in the world today. As scientists continue to learn about the disease, it is becoming increasingly clear that HIV transmission is not restricted to a few demographic groups (Hunt & Pujol, 1994). Because they engage in a greater amount of high-risk sexual behavior, some groups are more susceptible to infection than others. Researchers have examined AIDS-related knowledge and sexual behaviors in many different high-risk populations, including college students (e.g., Fisher & Misovitch, 1990; Hays & Hays, 1992; Walters, 1992), incarcerated adolescents and runaways (DiClemente, Lanier, Horan, & Lodico, 1991; Rotheram-Borus & Koopman, 1991), intravenous drug users (Selwyn, Feiner, Cox, Lipshultz, & Chohen, 1987), homosexual men (St. Lawrence, Hood, Brasfield, & Kelly, 1989; Wiktor & Biggar, 1990), and inner-city adolescents (Aruffo, Coverdale, & Vallbona, 1991; Goodman & Cohall, 1989).

As mentioned previously, college students have been determined to be a population at high risk for HIV infection (Ehde, Holm, & Robbins, 1995; Fennell, 1990). Attending college is often associated with increased independence and confidence; college students often take the opportunity to explore different behaviors and experiences (Walters, 1992), and sex is an important and common area of exploration. Because of the high social status given to athletes (see Balswick & Ingoldsby, 1982), college student-athletes may consider themselves more invincible than others and therefore engage in more high-risk behaviors (see Horvath & Zuckerman, 1992). Risky sexual behaviors may occur more often among ath-

letes, possibly due to a combination of high social status, feelings of invincibility, high sensation seeking behavior, and increased opportunity.

College student-athletes, then, should be considered another potential high-risk population for the transmission of HIV. The purpose of this paper is to examine AIDS knowledge and sexual behaviors among college student-athletes and nonathletes to determine if they have adequate knowledge about AIDS and HIV transmission, if the knowledge is being translated into lower-risk behaviors, and if student-athletes are at increased risk for HIV transmission.

Although several studies have been conducted on the sexuality and sexual attitudes of athletes (e.g., Garner & Smith, 1977; Heyman, Andersen, & Butki, 1996; Heyman, Varra, & Keahey, 1993), relatively little research has explored AIDS and athletes' sexual behaviors. With the recent HIV-related circumstances involving sport superstars such as Magic Johnson, Greg Louganis, Tommy Morrison, and the late Arthur Ashe, the topic of AIDS and HIV in sport has become increasingly prominent. The experiences of Johnson and others have led to increased AIDS awareness and knowledge among college students, adolescents, and other groups (Ehde et al., 1995; Sigelman, Miller, & Derenowski, 1993; Sumser, 1992).

Baldwin and Baldwin (1988) stated that "education is... the best line of defense against the spread of the acquired immune deficiency syndrome" (p. 181). If education is the key to prevention, as Baldwin and Baldwin claim, individuals with high levels of knowledge about AIDS should exhibit behaviors that are less risky. Social education programs based on this assumption have proven effective in increasing the level of AIDS knowledge in the general public (see Sweat & Levin, 1995), but increased knowledge often does not equate with behavioral changes. For example, Walters (1992) and Ehde et al. (1995) have reported that although the majority of college students exhibited a solid understanding of AIDS and HIV transmission, many students did not alter their behaviors and continued to engage in high-risk activities. This supports similar research on other populations (e.g., Fisher & Misovitch, 1990; Goodman & Cohall, 1989; Hays & Hays, 1992).

Appraisal of risk is an important consideration in examining reasons for whether or not behavioral changes occur. Relative to AIDS, many individuals seem to have adequate knowledge about the disease, including its transmission, effects, prevalence, and causes (Sweat & Levin, 1995). Nevertheless, a great many do not consider themselves to be at risk for contracting the disease even though they engage in risky behaviors. Perhaps these apparently paradoxical situations are a result of individual perceptions of invincibility or the common "it can't happen to me" attitude. This idea is supported by research examining behavioral differences between individuals who are personally acquainted with a person with AIDS or someone who was HIV-positive and those who are not (Gerbert, Sumser, & Maguire, 1991). Heyman et al. (1993) found that individuals who had a friend or family member with AIDS or HIV engaged in more behavioral changes than those individuals who did not personally know an AIDS or HIV-positive individual. Perhaps, as suggested by Ehde et al. (1995), the public announcements by Magic Johnson and Arthur Ashe—and more recently, diver Greg Louganis and

boxer Tommy Morrison—may serve as effective substitutes for personal acquaintances; athletes and others who identify with the superstars may have similar reactions to their favorite player's situation as they would to a related experience by a friend or family member.

This research examined the knowledge about AIDS and sexual behaviors in athletes and nonathletes. We hypothesized that, due to the availability of AIDS-oriented educational material, athletes and nonathletes would not differ on knowledge about the prevalence and transmission of HIV and AIDS and that both groups would score high on an AIDS knowledge test. Further, due to the increased awareness brought on by Magic Johnson's HIV-induced retirement from the NBA (Ehde et al., 1995; Sumser, 1992) and athletes' knowledge of and possible admiration for Magic Johnson, we expected athletes to report making more changes in their sexual behaviors than nonathletes. Finally, we believed that athletes who were personally acquainted with AIDS or HIV-infected individuals would score higher on AIDS knowledge and exhibit different (i.e., safer) behaviors.

Method

Participants

College students ($N = 381$) from introductory psychology and sociology courses at a rural university voluntarily participated in the study. Participants ranged in age from 18 to 54; the mean age was 20.52 years ($SD = 1.88$). Most were single ($n = 348$; 90%). The majority of the students were freshmen or sophomores ($n = 288$), and respondents were equally divided among males ($n = 189$) and females ($n = 192$). Nearly 90% of the respondents were Caucasian ($n = 342$), with the remaining 11% distributed between Black (4%), Hispanic (3%), Oriental (2%), and "other" (2%). All but one of the respondents described themselves as "exclusively heterosexual." Two thirds ($n = 251$) were currently sexually active or had been within the past year.

Respondents were classified as either athletes ($n = 246$) or nonathletes ($n = 135$). A student was classified as an athlete if he or she had participated in at least one varsity sport in college or during their junior or senior years in high school. The vast majority (92% of athletes) participated in at least two seasons, and most (55%) participated in more than one sport. There were 109 female athletes and 137 male athletes, as compared to 83 female nonathletes and 52 male nonathletes.

Questionnaires

Participants completed the AIDS Risk Behavior Knowledge Test (Kelly, St. Lawrence, Hood, & Brasfield, 1989) along with a demographic questionnaire and a survey examining their sexual behaviors. The 40-item knowledge test includes questions about the transmission, prevention, symptomatology, prevalence, and lethality of HIV and the AIDS virus. The inventory has been shown to have acceptable validity, and mean scores have ranged from 34.7 to 35.4 (SDs 2.4 to 2.7) (Ehde et al., 1995). The demographic questionnaire survey included items related to age, gender, academic major, year in school, ethnicity, sexual orientation, and athletic participation. The sexual behavior survey contained questions about fre-

quency of participation in certain sexual behaviors (e.g., vaginal and anal intercourse, oral sex), frequency of condom use, number of partners in the past year, perceived likelihood of contracting the AIDS virus, personal knowledge of AIDS or HIV-infected individuals, and behavioral changes resulting from Magic Johnson's HIV-induced retirement.

Procedures

In the spring of 1992 (after Magic Johnson's retirement), participants volunteered to participate in the project on one of five consecutive evenings. After a brief instruction period by the first or third author (e.g., "answer as honestly as possible" and "results will remain completely anonymous"), participants completed the demographic survey, the knowledge test, and the sexual behavior survey. Because the survey involved very intimate and personal subject matter, participants were encouraged to stop participation if they became uncomfortable with the survey. Fewer than ten respondents failed to complete the survey. Participants were well-spaced throughout the room, and responses were completely anonymous.

Results

In addition to common analysis of variance methods, effect sizes were calculated for the data. The effect size statistic (f) is similar to multiple R and is found by taking the square root of F and dividing it by the square root of n (the group sample size). By convention in the social sciences, .10 is a small effect size, .25 a medium effect size, and .40 is a large effect size (see Aron & Aron, 1994).

A 2 x 2 (Group x Gender) ANOVA on the AIDS knowledge test scores revealed that athletes and nonathletes did not differ on AIDS knowledge test results, $F(1, 378) = .91, p = .810$; both groups correctly answered over 85% of the questions. Because Goldman and Harlow (1993) found gender differences on measures of AIDS knowledge, risky behaviors, and perceived risk, gender was included as a variable of interest. Females ($M = 36.90$) scored significantly higher than males ($M = 35.13$) on the knowledge test, $F(1, 379) = 4.88, p < .05 (f = .16, \text{small-to-medium effect size})$. There were no significant interaction effects.

Results of a separate ANOVA with only the 251 respondents who were sexually active revealed that athletes were no more likely than nonathletes to use condoms, $F(1, 248) = 1.40, p = .24$. Both athletes and nonathletes reported using condoms less than half of the time, and less than 30% of the respondents in both groups reported using condoms all the time. In rating their likelihood of contracting HIV, the groups reported no differences; neither group rated their likelihood of contracting AIDS or the HIV virus higher than 5%.

Nearly 70% ($n = 171$) of the 246 athletes were sexually active. Nonathletes were less likely to be sexually active; less than 60% of nonathletes ($n = 80$) reported being sexually active within the past year. A 2 x 2 (Group x Gender) ANOVA revealed that athletes nonetheless reported engaging in sexual activities more often per month, $F(1, 379) = 14.73, p < .001 (f = .24, \text{medium effect size})$; and having more sexual partners in the previous year than nonathletes, $F(1, 379) = 9.70, p < .001 (f = .20, \text{a low-medium effect size})$. Males (athletes and nonathletes

together) reported having more sexual partners than did females, $F(1, 379) = 11.19, p < .001 (f = .24)$. There was a significant interaction effect, as male athletes reported far more sexual partners per year ($M = 2.81$) than did females athletes ($M = 0.98$) or male ($M = 1.59$) and female ($M = 0.76$) nonathletes.

Less than 5% of the respondents reported being personally acquainted with an AIDS or HIV-infected individual ($n = 16$). Therefore, analyses examining group differences (those who know an infected individual versus those who do not) should be interpreted with caution. No differences were found on AIDS knowledge test scores, number of partners, or frequency of condom use between these two groups.

Discussion

Many of the effect sizes found in the above analyses fall into the "small" to "medium" range, which may seem unimpressive by conventional standards, but because of the lethality of HIV and AIDS, even small effect sizes reveal important findings. The medium effect sizes reported in this research should be considered practically significant. The population from which the data involved in this research was gathered needs discussion. The sample was taken from a rural American population, and the results may not generalize to other groups. Further, because all but one respondent described themselves as "exclusively heterosexual," the results must be interpreted with caution. The nearly exclusive heterosexuality of the sample may be due to the conservative nature of the geographical region of the country from which the data were gathered. Very few participants reported being personally acquainted with an HIV-infected individuals or persons with AIDS. These numbers are extremely low, and the results presented in this research would probably be different in a more urban area. The population from which this sample was drawn probably is at lower risk for AIDS than most other populations. Nonetheless, the results are still interesting because they may reflect the beliefs of a large group of American youth.

It is also important to discuss the definition of "student-athletes" used in the study. The athlete group included both high school and college varsity sport participants, which leads to wide within-group variance in actual amount of sport participation. Although this variance may lead to increased potential generalizability of the results, it may in fact be a limitation to the study. Sports play an important role in rural American life, and most of the athletes in this study had extensive organized sport experience. The results should be interpreted with this consideration in mind.

Athletes and nonathletes scored very high on the AIDS knowledge test, suggesting that students may have adequate knowledge about AIDS prevalence, symptomatology, and transmission. This supports previous research (see Fennell, 1990; Hays & Hays, 1992) and provides further evidence that AIDS education programs have been effective in providing critical knowledge about the disease. Many people believe that the key to AIDS prevention is education (see Walters, 1992). If an individual understands the facts about AIDS, including the gravity of the disease and potential transmission routes, then that individual will make be-

havioral changes to become safer. Because the students in this study exhibited adequate knowledge about AIDS, yet still engaged in risky behaviors, the results of this study fail to support this notion.

Athletes seem to be at even greater risk than nonathletes. Both groups scored highly on the AIDS knowledge test, but athletes were more likely to be sexually active, engage in sexual activity more often, and have more sexual partners than nonathletes. Further, athletes were no more likely to use condoms than nonathletes. These behaviors put athletes at greater risk for contracting AIDS and other sexually transmitted diseases. As Bandura (1990) explained, education is only the first step in a multistage process of behavior change with regard to AIDS. While the AIDS knowledge level of athletes seems to be adequate, many athletes have not yet initiated behavioral change in accord with their knowledge.

These results support previous research that has found that knowledge is not a valid predictor of sexual behavior (Ehde et al., 1995; Hays & Hays, 1992; Walters, 1992). Despite their knowledge about potentially dangerous activities, athletes (and nonathletes) continue to engage in risky behavior. Further, they seem to consider themselves to be at very low risk for contracting HIV. Perhaps this is due in part to the perceived remoteness of the disease. The old adage of "out of sight, out of mind" seems appropriate, especially among the rural population sampled here. Very few of the respondents were personally acquainted with a person with AIDS or HIV, and they did not seem to consider AIDS a possibility for themselves.

When Magic Johnson made his announcement about his HIV status, many experts hoped that something positive could result (Gellert, Weismuller, Higgins, & Maxwell, 1992; Kalichman & Hunter, 1992). Many hoped that the announcement would serve as the catalyst to spark a movement toward safer sexual behaviors. Unfortunately, this does not seem to have been the case. Even though the athletes in the present study reported making changes in response to Magic's announcement, the changes seem to have been small and insignificant, and athletes continue to engage in more dangerous behaviors than do nonathletes. Well-known figures like Magic Johnson do not seem to serve as effective surrogate acquaintances in bringing about behavioral changes. This supports previous research (Sumser, 1992) and emphasizes the need for individualized approaches to AIDS education.

One of the biggest hurdles to sexual behavior changes relative to AIDS seems to be the perceived remoteness of the disease. With a few major exceptions, the disease has not yet made an impact on the athletic community, especially in rural settings like that of the present study. The results show that students, in general, do not perceive themselves to be at a high risk of contracting HIV. Therefore, athletes—who generally exhibit greater attitudes of invincibility and are more likely to engage in high-risk behavior than nonathletes (Anshel, 1994)—may need special attention with AIDS education. On the playing field or court, athletes are encouraged to be aggressive and take risks. In the community, they are often treated as celebrities. As a result, their everyday behaviors and attitudes are likely to be different from those of nonathletes.

Athletic counseling interventions should focus on increasing the athletes' perceived susceptibility, which should effectively increase their desire and will-

ingness to alter their behaviors. The current fact-based education programs are effective in providing information, but situation- and experience-based programs such as case examples and individual testimonials may be more effective in promoting behavioral change. Athletes need to be made aware of the actual risk associated with unprotected sexual behaviors. These risks do not stop with HIV and AIDS. Hepatitis B and other sexually-transmitted diseases also pose serious health risks in college populations.

The situations and experiences of Magic Johnson, Greg Louganis, Tommy Morrison and Arthur Ashe may provide the initial push towards effective intervention, but further work is necessary to promote healthier behavior. Athletic counselors could help to increase athletes' knowledge of the situation by using the highly publicized cases to represent the many unknown individuals with AIDS. Perhaps by focusing on the high-profile individuals who are HIV-positive (especially among the often-admired elite athletes discussed above), counselors can help to increase student-athletes' perceptions of susceptibility. Also, seeking out HIV-positive school or team alumni to serve as speakers may be another effective method of increasing student-athletes' perceived risk. For example, Greg Louganis has been a guest on university campuses speaking about AIDS, the pressures of being an international athlete, and being gay (Sobczyk, 1996). Such programs may help to increase student awareness about the realities of AIDS.

References

- Anshel, M. H. (1994). *Sport psychology: From theory to practice* (2nd ed.). Scottsdale, AZ: Gorsuch Scarisbrick.
- Aron, A., & Aron, E. N. (1994). *Statistics for psychology*. Englewood Cliffs, NJ: Prentice Hall.
- Aruffo, J., Coverdale, J., & Vallbona, C. (1991). AIDS knowledge in low-income and minority populations. *Public Health Reports*, 106, 115-119.
- Baldwin, J. D., & Baldwin, J. I. (1988). Factors affecting AIDS-related sexual-risk taking behavior among college students. *Journal of Sex Research*, 25, 181-186.
- Balswick, J., & Ingoldsby, B. (1982). Heroes and heroines among American adolescents. *Sex Roles*, 8, 243-249.
- Bandura, A. (1990). Perceived self-efficacy in the exercise of control over AIDS infection. *Evaluation and Program Planning*, 13, 9-17.
- DiClemente, R., Lanier, M., Horan, P., & Lodico, M. (1991). Comparison of AIDS knowledge, attitudes, and behaviors among incarcerated adolescents and a public school sample in San Francisco. *American Journal of Public Health*, 81, 628-630.
- Ehde, D. M., Holm, J. E., & Robbins, G. M. (1995). The impact of Magic Johnson's HIV serostatus disclosure on unmarried college students' HIV knowledge, risk perception, and sexual behavior. *Journal of American College Health*, 44, 55-58.
- Fennell, R. (1990). Knowledge, attitudes, and beliefs of students regarding AIDS: A review. *Health Education*, 21(4), 20-26.
- Fisher, J., & Misovitch, S. (1990). Evolution of college students' AIDS-related behavioral responses, attitudes, knowledge, and fear. *AIDS Education Prevention*, 2, 322-337.
- Garner, B., & Smith, R. W. (1977). Are there really any gay male athletes? *Journal of Sex Research*, 12, 22-34.
- Gellert, G. A., Weismuller, P. C., Higgins, K. V., & Maxwell, R. M. (1992). Disclosure of AIDS in celebrities. *New England Journal of Medicine*, 327, 1389.
- Gerbert, B., Sumser, J., & Maguire, B. (1991). The impact of who you know and where you live on opinions about AIDS and health care. *Social Science and Medicine*, 32, 677-681.
- Goldman, J. A., & Harlow, L. L. (1993). Self-perception variables that mediate AIDS-preventive behavior in college students. *Health Psychology*, 12, 489-498.
- Goodman, E., & Cohall, A. T. (1989). Acquired immuno-deficiency syndrome and adolescents: Knowledge, attitudes, beliefs, and behaviors in a New York City minority population. *Pediatrics*, 84, 36-42.

- Hays, H. E., & Hays, J. R. (1992). Students' knowledge of AIDS and sexual risk behavior. *Psychological Reports, 71*, 649-650.
- Heyman, S. R., Andersen, M. B., & Butki, B. D. (1996). *Homophobia and American athletes*. Manuscript submitted for publication.
- Heyman, S. R., Varra, E. M., & Keahey, J. (August, 1993). Comparison of high school varsity athletes and non-varsity students on measures of homophobia, sexual activity, and knowledge about AIDS. In S. R. Heyman (Chair), *Homophobia in sport: Confronting the fear*. Symposium presented at the American Psychological Association, Toronto, Ontario, Canada.
- Horvath, P., & Zuckerman, M. (1992). Sensation seeking, risk appraisal, and risky behavior. *Personality and Individual Differences, 14*, 41-52.
- Hunt, B. P., & Pujol, T. J. (1994). HIV/AIDS knowledge and behaviors in a cohort of college student athletes. *ICHPER Journal, 31*(3), 24-29.
- Kalichman, S. C., & Hunter, T. L. (1992). The disclosure of celebrity HIV infection: Its effects and public attitudes. *American Journal of Public Health, 82*, 1374-1376.
- Kelly, J. A., St. Lawrence, J. S., Hood, H. V., & Brasfield, T. L. (1989). An objective test of AIDS risk behavior knowledge: Scale development, validation, and norms. *Journal of Behavior Therapy and Experimental Psychiatry, 20*, 227-234.
- Rotheram-Borus, M., & Koopman, C. (1991). Sexual risk behaviors, AIDS knowledge, and beliefs about AIDS among runaways. *American Journal of Public Health, 81*, 208-210.
- Selwyn, P., Feiner, C., Cox, C., Lipshultz, C., & Chohen, R. (1987). Knowledge about AIDS and high-risk behavior among IV drug users in New York City. *AIDS, 1*, 247-254.
- Sigelman, C. K., Miller, A. B., & Derenowski, E. B. (1993). Do you believe in Magic? The impact of "Magic" Johnson on adolescents' AIDS knowledge and attitudes. *AIDS Education and Prevention, 5*, 153-161.
- Sobczyk, J. (1996, April 9). Olympian to talk about his life. *The Daily Nebraskan*, p. 1.
- St. Lawrence, J., Hood, H., Brasfield, T., & Kelly, J. (1989). Differences in gay men's AIDS risk knowledge and behavior patterns in high and low AIDS prevalence cities. *Public Health Reports, 104*, 391-395.
- Sumser, J. (1992). Campus knowledge of AIDS before and after "Magic" Johnson announced his infection. *Sociology and Social Research, 76*, 182-184.
- Sweat, M. D., & Levin, M. (1995). HIV/AIDS knowledge among the U.S. population. *AIDS Education and Prevention, 7*, 355-372.
- Walters, A. S. (1992). College students' knowledge about AIDS and reported changes in sexual behavior. *NASPA Journal, 29*, 91-100.
- Wiktor, S., & Biggar, R. (1990). Effect of HIV infection status on sexual activity among homosexual men. *Journal of AIDS, 3*, 62-68.

Author Notes

Brian D. Butki is a doctoral student in the Department of Exercise and Sport Science at the University of North Carolina at Greensboro, where he is studying Sport and Exercise Psychology and Counseling.

Mark B. Andersen is a licensed psychologist and head of Graduate Research in the Physical Education and Recreation Department at Victoria University in Melbourne, Australia. He is also coordinator of the graduate degree in applied sport psychology in the Psychology Department at Victoria University.

Steven R. Heyman was a professor in the Department of Psychology at the University of Wyoming at the time of his death in 1993. Dr. Heyman began working on this project with the first author when he was killed in 1993. We completed the project and are presenting it as we feel he would have wanted. We trust that he would have approved of our efforts.

Correspondence concerning this article should be addressed to Brian D. Butki, Department of Exercise and Sport Science, HHP 250, Greensboro, North Carolina, 27412. Electronic mail may be sent to: butkib@iris.uncg.edu.

Aiding the Transition to College: A Peer Mentoring Program for First-Year Student-Athletes

Timothy J. Morrissey
Jennifer L. Helfrich
University of Delaware

The use and potential effectiveness of peer mentoring programs for student-athletes is explored. Issues for first-year student-athletes are presented as they justify a need for additional support and guidance which older peers could effectively offer. This article describes one university's effort to support and increase student development in intercollegiate athletics through a peer mentoring pilot program. The program's design, implementation, and future directions are discussed.

Recent trends in the delivery of social support services on college campuses suggest that efforts are extending into many varied areas and topics, reaching specific populations of underserved or previously ignored groups (Giddon, 1988). One such subgroup receiving considerable attention is that of intercollegiate student-athletes. In addition to the normal developmental and existential concerns facing traditional college students (Chickering, 1975), these students have their own unique set of challenges and demands. Balancing new athletic and academic tasks, isolation from nonathlete peers, dealing with injury and career retirement, and facing additional interpersonal pressure from coaches, teammates, fans and media are well documented concerns (Ferrante & Etzel, 1991; Gabbard & Halischak, 1993; Parham, 1993; Stone & Strange, 1989; Wooten, 1994). Such issues may place student-athletes in an "at-risk" category as they may become more vulnerable to various forms of distress (Parham, 1993). Further, the limited time schedules of student-athletes reduce the opportunity and access to the campus resources that offer support. For such reasons, special counseling and academic services and interventions with this population are justified (Ferrante & Etzel, 1991; Gabbard & Halischak, 1993; Jordan & Denson, 1990; Sowa & Gressard, 1983).

When one considers the plight of the freshman student-athlete, foreseeable adjustment difficulties are illuminated. In general, today's college freshmen face increasingly significant and varied concerns in adjusting to the demands of a university environment (Schwitzer, McGovern & Robbins, 1991). These include leaving home for the first time, making new friends, encountering diversity in nearly all realms, academic-related stress and depression, new interpersonal and social dilemmas, and financial concerns. Further, research indicates that freshmen student-athletes face a particular variety of adjustments in their personal, social, academic and athletic realms (Stier, 1992). These adjustments are exacerbated by the time demands placed on them during their transition period. Handling these demands is especially important. A good start is critical for new student-athletes'

subsequent academic success (Willoughby, Willoughby, & Moses, 1991).

One method of aiding freshmen with their transition is the implementation of a peer mentoring program. A reason frequently given for utilizing peer programs in campus communities is to aid the freshman student's transition from high school to college (Giddon, 1988; Upcraft, Gardner, & Associates, 1989). It follows that a project that utilizes more experienced and older student-athletes may be a useful preventive intervention for meeting the task of supporting first-year student-athletes and promoting their college adjustment. Peer mentoring models imply a sharing of ideas and experiences between an older, more experienced mentor and a younger, less experienced mentee. Such models integrate the concept of providing relevant information and coping strategies about particular issues with the notion of a socially supportive environment, all without strict reliance on authority figures or professionals.

Evaluative data exploring the impact of peer mentoring on first-year student-athletes' college adjustment is, to date, scarce. For the typical freshman transition, however, there are several evaluative studies examining adjustment outcomes, most of which tend to demonstrate the effectiveness and value of organized peer assistance. For example, in a quasi-experimental design, Russel and Skinkle (1990) found that a peer advising orientation program increased participants' perceived and actual involvement in the university community. Additionally, Fedor and Fedor (1992) evaluated a peer advising program with engineering students aimed at increasing awareness and easing the freshman transition. The program was found to be a very valuable and useful experience by freshmen participants as they reported feeling greater self-confidence and competence in handling their rigorous curriculum. Hill (1990) presented more evidence supporting peer helping as a means of dealing with transitional issues. Freshmen, transfer, and senior students were surveyed in regard to a pilot program that aimed to provide varied and more effective support, direction, and coping skills to its participants. One hundred percent of the peer help receivers indicated they would recommend the service to others and 93% felt their expectations of the program were fully realized. The notable strengths reported by participants were the additional support the program granted and a sense that they were not alone in facing critical life transitions.

Projects aimed at student-athlete populations are just beginning to appear in the literature so there is little data to evaluate merits and flaws. Whitner and Sanz (1988) describe a peer counseling program which was developed to promote mutual support, lowered defenses, and enhanced knowledge of the intercollegiate experience for all participating student-athletes. Student-athletes' self-reported satisfaction and enhancement, however, were not favorable. The program had a negative outcome and collapsed within a year. Identified problems included the following: (a) mentor commitment; (b) strained friendships and feelings of isolation from mentors who were being perceived by fellow student-athletes as specially treated by athletic coaching staff; (c) freshmen misconceptions of what was to be gained; and (d) freshmen doubts about peer counselors' credibility, sincerity, competency, and responsibility. The use of only six upper-class student-athletes was presented as a severe limitation to the project and its results.

In contrast, Condor (1993) describes a life skills program (CHAMPS) utilizing a peer assistance approach that appears quite successful in its efforts. This seven-week orientation program utilized discussion sessions led by fifth year post-eligible student-athletes who were experienced and open to talking about problems and conflicts, thus avoiding one of the pitfalls of the program described by Whitner and Sanz (1989). Becoming more focused, setting priorities, and helping to unify the athletic community as evidenced by mutual support at games and practices, were other benefits observed in this program. A formal evaluation of the effects, however, was not performed.

There is research to suggest that student-athletes are especially competent in particular topics for peer helping programs. Caron (1993) discusses a program that enlists student-athletes as role models and peer educators on issues of sexual assault and rape awareness. In addition, athletes have benefited from the intervention of nonathlete peers. Peer helpers and paraprofessionals in student affairs have addressed academic concerns and study habits in a short-term program with football players, resulting in improved grade-point averages and athletes' increased satisfaction with college academics (Greer, Moore, & Horton, 1986).

The literature does suggest some difficulty in distinguishing between peer support and peer counseling, and what students find most helpful. Generally, peer helpers are thought to be equally sought and competent for a variety of personal concerns for students (Carter & Janzen 1994; Giddon, 1988). However, research does indicate that for more serious concerns such as suicide, death, and pregnancy, students prefer turning to qualified professionals and that distinctions must be clear for helpers involved in peer counseling to know limitations and make appropriate referrals (Carter & Janzen, 1994). It is also evident that much of the existing literature is hindered by the limitations of survey research methods and by a focus on short-term effects. In summary, the literature suggests that student-athletes have unique needs that could well be addressed through a peer mentoring program.

In response to the need for special interventions for first-year student-athletes, the Student Services for Athletes (SSA) program of the University of Delaware, in cooperation with its Student-Athlete Advisory Board (SAAB), designed a peer mentoring program in January 1995. The Peer Mentoring Program was then implemented in the subsequent fall semester as a pilot program. Designed with the hope that older, more experienced student-athletes could share their personal views and relevant information in a supportive, friendly, and interactive environment, it was expected to create benefits to first-year student-athletes facing adjustment to college life. Following is a description of the program including its design, selection process, training, supervision, and initial implementation. The basic tasks of the program's development are presented in Table 1.

TABLE 1
Program Development

Sequential Tasks	Description
1. Mentor Selection	Distribute application packets; evaluate responses; interview suitable candidates.
2. Mentor Training	Establish and present times and topics of mandatory training.
3. Training Evaluation	Survey mentors for feedback and reactions to training.
4. Group Formulation	Divide mentors into groups; obtain freshmen rosters and place with mentors accordingly.
5. Freshman Orientation	Inform freshmen of respective group numbers; survey freshmen regarding background and initial expectations of college; introduce freshmen to respective mentors.
6. Group Meetings	Mentors plan and host meetings.
7. Supervision	Mentors meet periodically with staff to monitor activities and freshmen receptivity, gain feedback, and make suggestions for improvement.
8. Program Improvement	Implement new ideas and changes.

Program Design and Goals

Design

In conjunction with Student Services for Athletes, four members of the Student-Athlete Advisory Board volunteered to help design the program. In general, the program design consisted of multiple small groups of first-year student-athletes led by three to four upper-class mentors. The size of these groups ranged from 10 to 15 first-year members. No group was without at least one male and one female mentor. In order to prevent any potential conflicts of interest that might exist within teams (e.g., competition for the same position, intrateam subgrouping) groups were arranged so that no mentor would lead a group with representatives from his or her team. This was also done with the thought that naturally developing mentor relationships may be fairly common within teams, and the mentoring program was to offer this type of relationship outside of one's sport.

In the design, groups met at least three times per semester. Meeting sites and topics were determined by individual mentors leading their respective groups. From the group encounters, one-on-one mentoring relationships developed as necessary.

Goals

The primary goal of the program was to enable successful junior and senior student-athletes to assist first-year student-athletes encountering academic, athletic, social, and emotional transition issues. Academically, freshmen were expected to profit from shared information concerning classes, professors, time

management, and study skills. Socially, the group environment gave freshmen student-athletes an opportunity to meet student-athletes on other teams. This arrangement also provided an atmosphere of shared concerns with which participants could identify and validate. Additionally, opportunities to reflect upon and appreciate individual similarities and differences were expected to occur. Mentors could act as sounding boards and a source of support as first-year students experimented with the new behaviors and developmental tasks associated with the freshman experience (dealing with new responsibilities and freedom, making decisions about drug/alcohol use, nutritional habits, sexual relationships, managing emotions, etc.). Athletically, the freshmen were expected to benefit from their mentors' successful modeling and experience in adjusting to the increased demands of college academics, while performing amidst new pressures from competitive athletics. Specifically, many mentors could help some freshmen with the idea of going from "the big fish in the small pond" to the "little fish in the big pond."

In addition to aiding the freshmen, there were other goals of the program. For the mentors, the program was to provide an opportunity for leadership experience and cooperative activity outside the arena of athletics, enhancing feelings of personal competence and self-esteem. Greater cultural and gender awareness, sensitivity, and understanding were anticipated. From a practical standpoint, it could promote their career development and serve as résumé-building experience. The athletic community might benefit as well, as the diversity in group design was expected to promote interest in other sport teams and an overall increase in school spirit. Also, if the program was successful, it could become a strong recruiting tool. Finally, all teams and programs should benefit competitively, in the athletic arena, with more well-adjusted freshmen.

Mentor Selection

The staff of the Student Services for Athletes program—with assistance from representatives of the Student-Athlete Advisory Board and coaches—promoted the pilot project during athletic team meetings in the spring of 1995. Applications were then sent out to current sophomores and juniors; seniors expecting to return for a fifth academic year were also invited to apply. Student-athletes on academic probation were deemed ineligible. Mailed during the first week of the spring semester, the application packet included an introductory memorandum, a program description outlining expectations and training, and an application asking for basic personal information (name, address, class, sport, etc.). Candidates also had to respond to three short essay questions. In general, these questions centered around the qualities one possessed which might enable him or her to be an effective mentor, the potential self rewards and gains from the mentoring experience, and relevant issues and concerns one might expect to encounter in working with first-year student-athletes.

Thirty-eight applications were received for the program. It should be noted that this was done after some recruiting of certain individuals for the program by the SSA staff, who hoped to obtain a population that was fairly gender-balanced.

There were 27 female and 11 male applicants. Upon review of these applications, all student-athletes with 2.5 cumulative grade point averages or higher were immediately accepted into the program. Five individuals below that mark were permitted to participate following interviews with SSA staff members, in which the athletes were cautioned that strict time management skills would be vital and that subsequent poor academic performance could call for their removal from the program. The rationale for including some student-athletes who were not as strong academically was that they could probably relate very well to some of the more academically "at-risk" freshmen student-athletes. They also possessed high enthusiasm for the project.

Mentors were notified of their acceptance into the program by both telephone and a formal letter. Written notification included the schedule for training session meetings during spring semester.

Training

There was a three-session training period for the new mentors conducted during the last 1 1/2 months of the spring semester. Each 2-hour session was offered on two separate dates to help avoid schedule conflicts. All mentors were required to attend one session for each topic. These sessions were led by members of the SSA staff and presented as round table discussions. Table 2 summarizes the activities highlighted in each session.

Table 2
Training Activities

Session	Major Activities
1. Orientation	Present program rationale, goals, format, and design; explain mentor roles and expectations; review campus resources; discuss freshmen issues and utilize case studies as a way to consider potential strategies and; consider ethical issues and present appropriate guidelines.
2. Diversity and Sensitivity	Explore stereotypes and personal biases through round table discussions.
3. Leadership	Present and interpret results of MBTI and its relevance to interpersonal relationships; explain supervision procedures, roles in freshmen orientation; evaluate training sessions.

The first session was an orientation program for the new mentors during which the project's rationale and goals were presented. Program design and format were discussed along with ethical guidelines for the mentors. Multiple case studies were presented to the group for discussion. Cases involved issues such as use of alcohol, homesickness, interpersonal relationships, lack of playing time, time

management problems, nutrition, and roommate problems. The cases also initiated discussion of other issues for freshmen student-athletes that were included in the mentors' application question responses. These included stress management, dealing with newly found freedom, eating disorders, academic stress, choosing a major, more intense athletic practices, making new friends, and a lack of time to meet people outside of the team. The handling of these issues was discussed as a group with possible alternative solutions offered by both training participants and the SSA staff leaders. The staff differentiated for the mentors which types of problems would be addressed by the mentors and which should be referred to other professional resources on campus. Available resources and services were discussed and outlined in a brief reference guide. At the end of the session, after a short explanation of its training purpose, the mentors were administered the short form of the Myers-Briggs Type Inventory (MBTI). The results of this inventory and its benefits were discussed in the third training session.

The second training session was a workshop on diversity and sensitivity. Stereotypes in a variety of forms were discussed and the mentors were challenged to analyze their own stereotypes and personal biases about others. They were also asked to consider potential stereotypes that may be attributed to themselves. Sensitivity and methods to improve communication and promote respect for individual differences were emphasized.

The third session focused on the results of the MBTI. The purpose of using the MBTI with this group was to help them gain further self-understanding and to enhance their potential relationships with others through a greater appreciation of their differences. Prior to giving out the results, the different characteristics of the MBTI preferences and personality types were presented. Results were then distributed and explained to the individual mentors and group exercises were done to promote understanding of the test's concepts. Each mentor was given an explanatory MBTI booklet to further explore their results and how they could be used in interpersonal helping relationships. At the end of the session, supervision and the mentors' roles in the Freshman Student-Athlete Orientation were explained.

Following the training periods, the mentors were asked to complete an evaluation survey of the training session and to obtain their mentor groupings at the SSA office. Groups were formulated by the SSA staff who considered gender, race, sport, and MBTI coding, in dividing mentors to reflect diversity in the backgrounds of these individuals. Each group was asked to make contact with respective members to develop a plan for the fall semester.

Implementation

The Peer Mentoring Program was implemented with the new student-athletes at Freshman Student-Athlete Orientation prior to the fall semester. During the summer, a list of freshman student-athletes was collected from the coaches that included a mix of scholarship student-athletes and potential "walk-ons." From this list, the first-year student-athletes were divided into numbered groups each comprised of 3 - 4 mentors and approximately 15 freshmen. These groups had to remain open to changes as many of the teams were still not set and some freshmen might be dropped or added to rosters throughout the year.

At Freshman Student-Athlete Orientation, each freshman was given his or her mentor group number and a survey to be filled out asking for basic demographic information and inquiries concerning area of study, expected study habits and academic demands, favorite activities/hobbies, and personal goals, etc. During the first half of orientation, while the freshmen were given information regarding eligibility and the services offered by Student Services for Athletes, the mentors met in a separate lecture hall to plan their initial meetings and go over supervision procedures. Also, they were instructed about the procedure for the second half of orientation and the important role they would play in getting this pilot program off the ground by stimulating the interest of the freshmen.

During the second half of orientation, the mentors were brought into the main orientation hall for introduction. The SSA staff then presented the purpose and general design of the mentoring program to the freshmen. Each mentoring group was introduced individually, and freshmen with corresponding numbers met their leaders and left with their group. Each mentor group then found a private area to casually introduce themselves and explained how they might prove useful to the freshmen. Convenient times and locations of future meetings were discussed. The mentors collected the freshmen surveys to obtain background information to aid in structuring exercises and pinpointing areas of discussion for the first official meeting. Mentors were to contact their freshmen mentees by telephone when a date, time, and location had been properly established.

In general, the orientation was used as a way to introduce the freshmen to the pilot project. Freshmen learned of this new opportunity to get to know others like themselves and were introduced to upper-class helpers who would lend them support immediately prior to the start of their first semester of college.

Supervision

The program was supervised by the coordinator of the Student Services for Athletes program. The purpose of supervision was to give the mentors a resource for feedback for their ideas and to monitor the types of activities occurring within the group meetings. Mentors were to schedule supervision meetings with the coordinator within a specified time period after each group meeting. In these supervisory meetings, they were to hand in Meeting Summary Sheets, which contained information regarding attendance, planned activities, topics discussed, and additional comments by the mentors.

Discussion

During the year, mentor groups seemed to have varying degrees of success and levels of participatory interest. A number of variables seemed to contribute to the success of the individual mentor groups. The degree of initiative and involvement shown by the mentors seemed to be a vital factor. The discrepancy between groups may have been due to the fact that mentors were not given specific requirements or guidelines as to how to structure and conduct their meetings during training. This was done in an effort to create a greater challenge for them in their new leadership position and facilitate their own personal development. Mentors

met this task with varying degrees of confidence. Those taking a more active and assertive role in encouraging their freshmen's participation seemed to have better attendance at meetings. This interest was displayed through early contact, both in person and through phone calls, with the freshmen. Outside of formal meetings, they periodically checked on the welfare of their new student-athletes and this appeared to have a greater impact on the respective freshmen. Other mentors settled for contact at meetings only and typically left messages on answering machines about the meetings without a great deal of advance notice. These groups appeared to struggle more with attendance at their meetings.

Another variable that seemed to affect the program for certain groups was attendance at Freshman Student-Athlete Orientation. Some teams had practice during this time, which affected attendance of some freshmen and mentors. For these freshmen, this had an impact in that they were not introduced to the program by the Student Services for Athletes staff and their selected mentors. They were unaware of the program and the help that their mentors could provide them early in the semester. Thus, calls from the mentors about meetings were often met with confusion and apathy. The mentors that missed orientation also affected some groups in that they did not have an opportunity to be introduced to their freshmen and share their enthusiasm for the program.

A third variable that affected the program was the fact that neither attendance nor participation was mandatory for freshmen. Without the coaches' full support, there was no means of enforcing attendance. Also, some of the mentors felt that it was better to only have people participate who possessed a sincere interest. For student-athletes required to fulfill study hall hours, however, meetings were counted towards their requirement. This, in particular, helped increase participation for team members of fall sports.

Several changes are planned for the second year of the program. A primary change will involve the organization and arrangement of Freshman Student-Athlete Orientation. The orientation program will be held in the evening when there is no conflict with practices. Also, mentor groups will have classrooms nearby to conduct their first meetings during the second hour of orientation. This will allow freshmen to be exposed to the program and have greater involvement with their mentors and fellow mentees immediately. If mentors can make known their interest in helping their freshmen succeed, and create a safe and fun atmosphere at this time, it is believed that potential benefits will be better recognized and attendance at future meetings will increase.

The number of mentors will be doubled (from 26 to 52), creating 13 groups with four members each. Additionally, the program will have a special name, the HENS (Helping Each Newcomer Succeed) program. The acronym is consistent with the University of Delaware's mascot, the Blue Hen. The rationale was that an official title might lend more identity and interest to the program.

Finally, training of mentors will be conducted with several changes. New mentors will have an orientation to the program and its responsibilities and expectations through an individual meeting with the program coordinator. This will help the coordinator become better aware of individual mentors' strengths and weaknesses, aid in grouping mentors together, and reduce or prevent a diffusion

of responsibility that a large meeting might suggest. Further, the mentors will know with whom they are working at a much earlier date and will begin more structured planning for their meetings and the new season together, during the training sessions.

Overall, the program appears to have had an impact on the student-athletes who have chosen to participate. While there was no formal instrument to measure freshman satisfaction, many freshmen participants informally communicated their positive feelings about the program and what it offered them. All mentors eligible to return to the program volunteered for a second stint, speaking highly of their experience and their interest in creating program improvements.

Summary

The stress inherent in the freshman's transition to college may be alleviated through the use of peer mentoring programs. These programs can provide direct guidance and support, normalizing perceptions of dissonance, and contributing to the overall adjustment to college and the developmental processes of these students. Such programs may also stimulate the mentors' development by placing them in different roles with new challenges, tasks, and rewards. Simultaneously, mentoring programs may impact larger communities within the university's student body. The HENS Peer Mentoring Program at the University of Delaware is one effort that may provide a model to follow in striving towards these ideals.

References

- Caron, S. L. (1993). Athletes as rape-awareness educators: Athletes for sexual responsibility. *Journal of American College Health*, 41 (6), 275-276.
- Carter, S. P., & Janzen, H. L. (1994). Peer counseling or peer support: There is a difference. *Canadian Journal of School Psychology*, 10 (1), 36-42.
- Chickering, A. W. (1975). *Education and identity*. San Francisco: Jossey-Bass.
- Condor, D. R. (1994, February). *CHAMPS: A life skills program for freshmen student-athletes*. Paper presented at the National Forum on New Student-Athletes, Columbia, SC. (ED 370 895)
- Fedor, J., & Fedor, S. R. (1992). Engineering peer advisor program and evaluation. *Journal of College Student Development*, 33 (2), 177-178.
- Ferrante, A. P., & Etzel, E. (1991). Counseling college student-athletes: The problem, the need. In E. Etzel, A. P. Ferrante, & J. W. Pinkney (Eds), *Counseling college student-athletes: Issues and interventions*. Morgantown, WV: Fitness Information Technology, Inc.
- Gabbard, C., & Halischak, K. (1993). Consulting opportunities: Working with student-athletes at a university. *The Counseling Psychologist*, 21 (3), 386-398.
- Giddon, N. S. (1988). *Community and social support for college students*. Springfield, IL: Charles C. Thomas, Pub.
- Greer, R. M., Moore, T., & Horton, H. (1986). Athletics and academics: One student affairs effort. *Journal of College Student Personnel*, 27 (6), 572.
- Hill, L. (1990). Facing life transition: A peer counseling program. *Journal of College Student Development*, 31 (6), 572-573.
- Jordan, J. M., & Denson, E. L. (1990). Student services for athletes: A model for enhancing the student-athlete experience. *Journal of Counseling and Development*, 69, 95-97.
- Parham, W. D. (1993). The intercollegiate athlete: A 1990s profile. *The Counseling Psychologist*, 21 (3), 411-429.
- Russel, J. H., & Skinkle, R. R. (1990). Evaluation of peer advisor effectiveness. *Journal of College Student Development*, 31 (5), 388-394.
- Schwitzer, A. M., McGovern, T. V., & Robbins, S. B. (1991). Adjustment outcomes of a freshman seminar. *Journal of College Student Development*, 32 (6), 484-489.

- Sowa, C. J., & Gressard, C. F. (1983). Athletic participation: Its relationship to student development. *Journal of College Student Personnel*, 26, 236-239.
- Stier, W. F., Jr. (1992). The TRIAD assisting, advising, and assessment model: One institution's attempt to support the student-athlete. *Academic Athletic Journal*, Spring, 34-42.
- Stone, J. A., & Strange, C. C. (1989). Quality of student experiences of freshmen intercollegiate athletes. *Journal of College Student Development*, 30 (2), 148-154.
- Upcraft, M. L., Gardner, J. N., & Associates. (1990). *The freshman year experience: Helping students survive and succeed in college*. San Francisco: Jossey-Bass.
- Whitner, P. A., & Sanz, D. L. (1988, January). *Student-athletes as peer counselors*. Paper presented at the Annual Meeting of the National Association of Academic Advisors for Athletics, Nashville, TN. (ED 296 262).
- Willoughby, L. M., Willoughby, D. S., & Moses, P. A. (1991). Mentors for beginning college student-athletes: A possible aid for academic success. *Academic Athletic Journal*, Fall, 1-12.
- Wooten, H. R. (1994). Cutting losses for student-athletes in transition: An integrative transition model. *Journal of Employment Counseling*, 31 (1), 2-9.

Author Notes

Tim Morrissey, M.Ed. is the Coordinator of the Student Services for Athletes program at the University of Delaware. He supervises the peer mentoring and community service programs, teaches a freshmen seminar course, and is responsible for the academic monitoring of five intercollegiate teams.

Jennifer Helfrich, M.Ed. recently completed her graduate studies at the University of Delaware, where she served a two-year graduate assistantship with the Student Services for Athletes program. She is a former competitive figure skater and has extensive experience as a figure skating coach.

Correspondence concerning this article should be addressed to Tim Morrissey, 108-J Delaware Field House, University of Delaware, Newark, DE 19716. Electronic mail may be sent to: Timothy.Morrissey@mvs.udel.edu

Membership and Subscription Information

MEMBERSHIP INFORMATION

To inquire about becoming an N4A member or to change a mailing address, please contact the organization's central office:

Kathi Ley
N4A National Office
14606 Woodlake Trace
Louisville, Kentucky 40245
Phone: (502) 253-9530
Fax: (502) 253-9533

SUBSCRIPTIONS FOR N4A MEMBERS

A one-year subscription is included in the annual dues of all N4A members, who automatically receive the two publications each year. Mailings outside of North America require a surcharge of \$4.

SUBSCRIPTIONS FOR NON-MEMBERS

For those who are not members of the N4A, the following rates apply:

Individual: \$20.

Institutional: \$30.

Student: \$13.

Mailings outside of North America require a surcharge of \$4.

SUBSCRIPTION REQUESTS

Your request for a subscription should include your name, address, and a check made payable to the N4A. Mail your request to:

Fred Mims
University of Iowa
301 Carver-Hawkeye Arena
Iowa City, Iowa 52242