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## **Comparing Sources of Stress in College Student Athletes and Non-Athletes**

*Gregory Wilson, P.E.D.*  
*University of Evansville*

*Mary Pritchard, Ph.D.*  
*Boise State University*

### **Introduction**

The transition from high school to college can be stressful for any student (Hudd et al., 2000; Pritchard, Wilson, & Yamnitz, 2004), but recent evidence suggests that athletes may experience even greater levels of stress due to the dual demands of athletics and academics placed on them during their freshman year. Lazarus and Folkman (1996) have defined stress as the negative feeling that occurs when an individual feels unable to cope with the demands placed upon them by their environment. For the matriculating freshman student athlete, these demands may at times seem overwhelming.

Although researchers acknowledge that participation in athletics can serve as a buffer to stress (Hudd et al., 2000; Kimball & Freysinger, 2003; Kudlacek, 1997; Shirka, 1997), studies also suggest that athletic participation itself can become an additional stressor that traditional college students do not experience (Kimball & Freysinger, 2003; Papanikolaou, Nikolaidis, Patsiaouras, & Alexopoulos, 2003). Athletes experience unique stressors related to their athletic status such as extensive time demands; a loss of the 'star status' that many had experienced as high school athletes; injuries; the possibility of being benched/red-shirted their freshman year and conflicts with their coaches, among other factors (Humphrey, Yow, & Bowden, 2000; Papanikolaou et al., 2003). In addition to these stresses, freshmen athletes must also meet the increased academic demands at the college level. The interaction of these multiple stressors presents a unique problem for the college student athlete, and evidence suggests that the combination of these stressors has a negative affect on their well-being. For example, a recent investigation found that almost half of the male athletes and slightly more than half

of the female athletes interviewed indicated that stresses associated with sport participation, such as pressure to win, excessive anxiety, frustration conflict, irritation and fear significantly affected their mental or emotional health (Humphrey et al., 2000). Moreover, studies have suggested that college athletes who experience high levels of stress are more likely to practice bad health habits (Hudd et al., 2000) and to experience psychological problems (Shirka, 1997), including low self-esteem (Hudd et al., 2000; Papanikolaou et al., 2003).

In addition to mental health concerns, many athletes report physical health concerns as well, such as lack of sleep, continuous tension, fatigue, headaches, and digestive problems (Humphrey et al., 2000). In fact, 10% of college athletes suffer from psychological and physiological problems that are severe enough to require counseling intervention (Hinkle, 1994). Even more alarming is the fact that college student athletes tend to avoid seeking out available counseling (Murray, 1997), so the percentage of student athletes who may actually require such intervention is possibly higher than this figure. This is important since Murray (1997) has learned that in addition to those psychological and physiological issues mentioned above, athletes may also be in particular need of counseling for a variety of additional stress-related concerns, including time management, burnout, fear of failure, anxiety, depression, and self-esteem issues. Recent research has supported the contention that time in particular is an important obstacle for many athletes. Humphrey et al. (2000) report that for more than 40 percent of male athletes and well over half for the female athletes, factors related to “time” were the most serious causes of stress. Most of the respondents in this study felt that there was simply not enough time to combine academics and athletics and to do their best in both areas (Humphrey et al., 2000).

Complicating the freshman transition for the student athlete are difficulties related to academic success (Humphrey et al., 2000; Papanikolaou et al., 2003). In fact, 95% of male athletes and 86% of female athletes were stressed by factors such as: tests and examinations, preparing papers for class, missing classes because of travel, and making up missed assignments (Humphrey et al., 2000). In addition, many athletes find they are unprepared for academic life in college or falsely believe that they will be treated differently in the classroom because they are athletes (Papanikolaou et al., 2003).

Finally, athletes often find relationships with others quite stressful. For instance, recent findings have suggested that athletes often report problems such as negative and unsatisfactory relationships with teachers, coaches, and fellow athletes (Humphrey et al., 2000; Papanikolaou et al., 2003).

In summary, there is a need to identify specific sources of stress that significantly affect student-athletes that may differ from those experienced by the traditional non-sport college student. This is especially true for the college freshman student-athlete who is facing multiple new challenges arising from athletic, academic and social demands. Many freshmen student-athletes are unprepared to successfully deal with these stressors, and knowledge about those specific factors leading to heightened stress levels is essential in the planning of effective intervention programs. Hence, the purpose of this exploratory

study was to identify those stressors identified by Division-I freshmen athletes as most prevalent during their first semester in college.

## Method

### *Participants*

The participants ( $n = 362$ ) in this study were female ( $n = 235$ ) and male ( $n = 127$ ) freshmen students at a private Division-I Midwestern university. Participation in this study was voluntary, and participants were recruited from a required freshman general education class at the end of their first semester of college. The participants ranged in age from 17 to 34, with a mean age of 18.45 ( $SD = 1.24$ ). Participants were grouped as athletes ( $n = 52$ ) and non-athletes ( $n = 310$ ). Athletes were considered as participating on an intercollegiate varsity athletic team. Due to the demographic composition of the university surveyed being predominantly female (over 60%) and athletes comprise only a small proportion of the total student population (10%), we decided to allow our participant groups to reflect more of the breakdown of the aggregate university student body rather than having equivalent numbers of participants in each group. Each participant read and completed an informed consent form prior to this study, and were informed that their responses would be confidential. The University Internal Review Board approved procedures for this investigation prior to initiating the study.

### *Measurement*

We assessed various stressful events specifically oriented to college students' lives (e.g., "struggling to meet your own academic standards") using questions adopted from The Survey of Recent Life Experiences developed by Kohn, Lafreniere, and Gurevich (1990) which has shown to possess both validity and reliability (de Jong, Timmerman, & Emmelkamp, 1996). Participants were asked to rate how much 57 events have been a part of their lives in the past month on a scale from 1 = *not at all* part of my life to 4 = *very much* part of my life.

A limitation of this exploratory study was that it was conducted at a small private university with relatively demanding academic standards. This could influence the sources of stress experienced by the student-athlete, and future work needs to extend these findings to other more heterogeneous populations. Secondly, this study was not able to ascertain whether gender differences exist in the types of stress experienced by student-athletes and work needs to be conducted to determine whether males and females perceive similar sources of stress. Finally, this study was cross-sectional and limited in its analysis. Future studies should examine the longitudinal effects of stress on the student athletes' well-being.

Students were grouped as athletes or non-athletes for this study. For each source of stress, the means were compared between the two groups using t-tests.

## Results

The purpose of this exploratory study was to assess the differences in the types of stress that athletes and non-athletes experience. We found that athletes differed in a variety of ways from their non-athlete counterparts. For example, student athletes reported more stress than did non-athletes in a wide variety of variables; specifically those that dealt with conflicts with a boyfriend's or girlfriend's family,  $t(359) = 2.53, p < .05$ , to having a lot of responsibilities,  $t(357) = 1.96, p < .05$ , not getting enough time for sleep,  $t(357) = 1.98, p < .05$ , and having heavy demands from extracurricular activities,  $t(359) = 8.81, p < .001$ . On the other hand, non-athletes reported more stress than their athlete counterparts in areas such as financial burdens,  $t(357) = 3.27, p < .001$ , making important decisions about their education,  $t(357) = 2.03, p < .05$ , getting ripped off (e.g. paying too much for services),  $t(357) = 2.43, p < .05$ , social conflicts over smoking with a roommate or friend,  $t(356) = 2.36, p < .05$ , difficulties with transportation,  $t(357) = 2.10, p < .05$ , social isolation,  $t(356) = 2.73, p < .01$ , being ignored,  $t(356) = 2.49, p < .05$ , and being dissatisfied with their physical appearance,  $t(356) = 3.35, p < .001$ .

## Discussion

The intent of this exploratory study was to compare sources of stress in first semester college freshman student athletes versus student non-athletes. This is important because recent studies (Murray, 1997) have found that athletes may be in particular need of counseling for a variety of additional stress-related concerns, including time management, burnout, fear of failure, anxiety, depression, and self-esteem issues. Although several studies have examined isolated sources of stress in college athlete populations (e.g., health concerns) or athlete specific stressors (e.g., missing class for team-related travel and having to make up work), few studies have examined a wide variety of stressors that affect both athlete and non-athlete populations to ascertain how athletes might be more or less affected by traditional sources of college student stress. In addition, few students have compared stress levels in athletes to those of non-athletes. As will be discussed below, similar to previous studies (Humphrey et al., 2000; Papanikolaou et al., 2003), we found that college student-athlete's stressors differ in a variety of ways from their non-athlete counterparts. When the interaction of the environment in producing stress is taken into account (Lazarus and Folkman, 1996) this would appear to be sensible since the student-athletes in our study encountered unique environmental demands when compared to their non-athlete cohorts.

### *Relationship stress*

Similar to previous research (Humphrey et al., 2000; Papanikolaou et al., 2003), athletes in our study reported more stress from relationships than did non-athletes. In our study, athletes reported more stress resulting from conflicts with their boyfriend's or girlfriend's family than did their non-athlete counterparts. Additionally, our study replicated previous findings (Humphrey et al., 2000; Papanikolaou et al., 2003) relating to time management issues. The athletes in our study reported significantly greater levels of stress due to the increased number of responsibilities related to involvement in

athletics. This may have been particularly true since participants in this study were freshmen. While many freshmen must learn to successfully navigate the increased academic and social demands associated with college success, the freshmen student-athlete has the additional stress of athletic responsibilities. Hence, the matriculating student-athlete faces additional and unique sources of stress not encountered by the student non-athlete.

### *Academic Stress*

Unlike previous studies in which athletes reported higher levels of academic stress due to missed classes, (Humphrey, et al., 2000; Papanikolaou et al., 2003), athletes in our study did not report more academic problems and concerns than their non-athlete counterparts. In fact, the only academic-related difference between athletes and non-athletes was that non-athletes reported more stress from making important decisions about their education. Although it might seem surprising that athletes did not fare worse, this may be reflected in the general academic philosophy of the institution. Athletes must meet the identical academic standards of the general student population, and it could be that in many cases they are somewhat better prepared academically than other Division-I collegiate athletes.

### *Financial Stress*

Although previous studies reported athletes experiencing more stress from financial concerns (Humphrey et al., 2000; Papanikolaou et al., 2003), in our study non-athletes were more likely to report stress from financial burdens than were athletes. Once again, this may partially reflect the nature of the university, which is a private institution with significant tuition demands. Due to the fact that many of the athletes are attending school on an athletic scholarship, it is plausible that the financial burden of attending a private institution are less when compared to the non-athlete.

### *Physical and Mental Health*

There were also a few differences in stress related to both physical and mental health. Similar to Humphrey et al. (2000), athletes in our study were more likely than non-athletes to report stress from not getting enough time for sleep. On the other hand, stress-related differences in mental health variables tended to be better for athletes than for non-athletes. This finding is compatible with Morgan's (1984) Mental Health Model that describes the psychological profile of athletes as being considerably more positive than that of the general population.

### *Body Satisfaction*

Finally, being an athlete seemed to serve as a buffer for certain types of stress in our study. For example, non-athletes were more vulnerable to being dissatisfied with their physical appearance. This is not surprising given that athletes display healthier attitudes about their eating habits and body shape than do their non-athletic counterparts

(DiBartolo & Shaffer, 2002). This perhaps isn't surprising since recent findings (Martin & Lichtenberger, 2002) have found that exercise training can lead to significant improvements in body image. Since athletes undergo regular periods of structured training, and are often more aware of their nutritional needs, it would appear sensible that they would also possess healthier beliefs when compared to non-athletes.

### *Social Stress*

In addition to athletic status serving as a buffer against body dissatisfaction, the athletes in this study reported less stress than their non-athlete counterparts from getting ripped off, social conflicts over smoking, difficulties with transportation, social isolation, and being ignored. A partial explanation for these findings may be that the student-athlete has an established social niche. As a member of their athletic team, the athlete is involved from the start with a social group that shares similar interests. Hence, feelings of social isolation or social conflicts over smoking are probably not experienced by the student-athlete to the same degree as the student non-athlete since their social group is more homogeneous. In addition, because the athlete has a built in social group, they likely would have a built in support system to help them with certain types of stress.

### *Conclusions and Implications*

Because athletes often represent an "at-risk" student group in terms of college academic success, it is important to identify the unique sources of stresses experienced during the first semester freshman year for the student-athlete. University athletic departments need to be cognizant of the time demands that are placed on their athletes during this crucial period of adjustment. Additionally, prevention programs need to be implemented that help assist the freshmen athlete in dealing with potential sources of stress..

While interventions need to be developed that take into account the unique needs of the college student athlete, future studies ought to address the types of prevention and intervention methods used. One proactive suggestion to reduce stress based on recent research has been to allow student athletes to work in groups (Harris, Altekruze, & Engels, 2003) so that they can share experiences. Allowing athletes to share common experiences may serve as a way for younger athletes to assimilate themselves into college and serve as a support mechanism for those having difficulty adjusting. Other possible interventions could consist of limiting weekly practice time for freshmen. One of the most commonly cited sources of stress for freshmen athletes is time. This issue is important, since upon matriculation the freshman athlete is faced with the same increased academic and social demands of the non-athlete. However, they have significantly greater time demands placed upon them, leaving them less time to acclimatize themselves to college life. Restrictions on practice time and athletic commitments would facilitate this adjustment period for the freshmen athlete.

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