Perceived Athletic and Academic Stressors and Time Management of Student-Athletes

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Introduction

A typical National Collegiate Athletic Association (NCAA) Division-I affiliated member institution provides support to at least seven men's and women's sports that sustains over 300 student-athletes. These student-athletes perform both on and off the court on a daily basis while completing their homework and studying for tests just like non-athlete students. Furthermore, they participate in practices, compete in games, lift weights, attend team meetings, and manage injuries. Although faculty members are aware of the demands placed on college athletes, it's unclear if they understand the magnitude of the challenges and pressure college athletes have experienced outside of the classroom.

Much of current media attention focuses on the controversial issues such as compensating student-athletes for their athletic contribution, and the academic integrity of college athletic programs. Many critics insist that student-athletes should be mainly in school to pursue an education, and not to play a sport for salaries. However, this does not alleviate student-athletes from the pressure to achieve athletic excellence since they must play the dual roles, student and athlete, regardless of the merits of the arguments. After examining studies conducted on the level of anxiety and stress faced by collegiate athletes (Carodine, Almond, & Gratto, 2001; Cosh & Tully, 2015; Halvorson, 2012; Miller, 2002), it is easy to conclude that student-athletes are highly anxious and concerned with both the academic and athletic demands placed on them. Multiple studies and literature indicate that student-athletes' stressors include long hours of practice, competition, travel, pressure to win, and academic obligations (Carodine et al., 2001; Halvorson, 2012; Miller, 2002). Other studies also addressed the different types and levels of anxiety and stress student-athletes experience throughout their academic career (Rhoden, 1990; Storch, Storch, Killiany, & Roberti, 2005; Weber, Shennan, & Tegano, 1990). Although the issues concerning student-athletes' stress and anxiety are recognized, only a limited amount of research has been undertaken to identify methods that can be used to help student-athletes cope with them (Boyd, 2012; Cosh & Tully, 2015).

The purpose of this study is to examine how student-athletes perceive daily stresses derived from their athletic, academic, and social obligations. In addition, the authors investigated the student-athletes' time management and the support they expect to receive in order to cope with stress. The results of the study will help the administrators and faculty members learn about student-athletes' daily activities and their psychological states, which should help

them aid and improve the well-being of the student-athletes.

Review of the Literature

Student-athletes' stresses and issues

According to Folkman and Lazarus (1985), stress is defined as a "relationship between the person as relevant to his or her well-being and in which the person's resources are taxed or exceeded" (p.151). Stress affects each person differently. In addition, student-athletes' perceived nexus of collegiate sport and stress varies significantly depending on their gender, race and social class (Beamon and Bell, 2006; Halvaorson, 2012; Sagar et al, 2011; Watson & Kissinger, 2007). The variability of the stress effects depends on the individual's personality and medical history. Also previous experiences on how stress was handled can assist the person in dealing with a current stressful situation. Some stressors associated with participation in elite-level sports include: poor mental preparation, injury, performance expectations, self-presentation, and rivalry (Cosh & Tully, 2015). Along with pressure coming from athletic participation, many student-athletes also experience intense stress outside of sport competition that includes interpersonal relationships and academic pressure (Halvorson, 2012; Kimball & Freysinger, 2003; Misra, & McKean, 2000). Other potential stressors may include the training environment, homesickness, ineffective support systems, the effects of traveling, and coaching techniques and styles (Halvorson, 2012).

According to Boyd (2012), most university athletic programs' main function include providing competitive opportunities for athletes, serving as a source of pride, providing a gathering place for the university faculty, students, and alumni, and developing well-prepared leaders for our society. Although the intent and goals are noble, participants (mainly student-athletes) of athletic programs may not believe they are receiving the ideal or claimed benefits through their participatory experience. Cosh and Tully (2015) stated that student-athletes who participate in elite sports in higher education find the experience to be very stressful and it may cause them to sacrifice their education. Athletes seem to be less motivated to engage in academics in comparison to the non-athlete students (Armstrong & Oomen-Early, 2009; Beamon & Bell, 2006). For example, they often choose easier subjects and only aim to pass them in order to accommodate their athletic commitments and requirements. Not surprisingly, this academic approach could drastically hinder their future careers.

In addition to academic pressure, intercollegiate athletic participation is also viewed as a root of cause of negative emotions, delinquent behaviors, and pain (Armstrong & Oomen-Early, 2009). Sagar and associates (2011) examined 176 male and 155 female collegiate athletes' athletic participation experiences. Their study concluded that athletes' athletic experiences and fears of failure may increase the frequency of antisocial behaviors. Male athletes expressed a greater level of fear of failure and were more likely to lower their self-esteem after losing than female athletes. Studies demonstrated that many student-athletes feel anxious and introverted prior to competition (Halvorson, 2012; Sagar et al., 2011).

When mistakes occurred, whether in practice or in competition, these feelings become more intense, while adding frustration and self-disappointment. In a small sample qualitative study conducted by Halvorson (2011), all of the athletic participants experienced negative emotions related to pain during practice or competition. Furthermore, the majority of the participants described not being satisfied with their athletic performance.

Although student-athletes mainly choose to attend an institution for athletics and academics, Halvorson (2012) indicated that family support and the proximity of the school to the athletes' family/hometown are the primary factors that determine the athletes' school choice. It was noted that many freshman female athletes often reported being unusually anxious or 'down' since starting college. Combination of being far from home and athletic obligation or pressures cause many athletes to develop unhealthy coping behaviors. These unhealthy behaviors include alcohol and tobacco use, eating disorders, and participation in risky sexual behaviors (Halvorson, 2012).

Mechanism and strategies for coping stress

Even though sports participation can be viewed as an enjoyable and satisfying activity that relieves their daily stress, it is also a source of stress. Hence to overcome stress, the student-athletes must utilize a variety of coping strategies and mechanisms. Fortunately, student-athletes are often able to readily identify the cause of their anxiety or depression. According to Folkman, and Lazarus (1985), four coping macro-dimensions have been theorized (see Table 1). Competition has a great impact on athletes' ability to cope with stress. In the case of middle adolescent athletes, emotion- and problem-focused coping strategies appear to be the most used. In contrast, elite athletes with a high level of athletic experience, appear to rely on a problem-focused and appraisal-focused coping mechanism more than less experienced athletes.

Kimball and Freysinger (2003) indicated participation in sports can assist student-athletes to deal with stress, if they also develop self-determination, control, and social support. Studies have described many positive coping strategies and techniques to deal with stress (Folkman & Moskowitz, 2000; Halvorson, 2012). The most commonly identified techniques include mental training relating to problem-focused coping and emotion-focused coping. Experts also suggested using intense focus and positive self-talk to work through stressful situations (Folkman & Moskowitz, 2000). Athletes are receptive to this strategy because they were encouraged to bounce back after mistakes. Other methods included consuming food and exercise. These techniques are more likely used to avoid or reduce negative emotions.

Maturity (age) and gender are two important factors to determine effective coping strategies to overcome sport-specific stressors. According to Halvorson (2012), freshman female collegiate athletes seem to lack coping skills to manage the stress associated with adjusting to college life and the higher level of sports competition. Since 52.6% of the 11,730 Division-I athletes are female, more research is needed to determine how female student-athletes

manage and cope with stress. It is vital for student-athletes to maintain close relationships with family, friends and/or significant others to successfully cope with stress. Student-athletes often view their sport family members as "extended families." Their coaches, teammates, and community friends can all lend significant support to student-athletes. Despite family support, student-athletes still need to "figure things out" and deal with stress on their own. When an experienced athlete overcomes stress, the individual is more likely to provide energy and encouragement to other team members.

Boyd (2012) believes it is imperative that programs be created to help orient athletes to the university and support them while they develop a fine grasp of their academic responsibilities, their community, and their personal development. For the sake of student-athletes' well-being, the institution must also develop a mechanism to ensure that student-athletes avoid drinking alcohol as a means to to cope with stress.

Methodology

Participants

In this study, the authors adopted a convenience sampling method to survey 212 student-athletes and non-athlete students (66% males, 34% females) who study and compete at a regional state university in Appalachia. A majority of the participants (60.4%) were Caucasians (whites) and about 25.5% were African-Americans (blacks). Table 2 and 3 each display the distribution of the number of different academic performance categories based on their self-reported grade point average (GPA) and types of participatory sports. Overall, about 41.5% of the total participants had a GPA of 3.0 or higher. Nearly half of the participants played "non-revenue generating sports" at the varsity level. In this case, the non-revenue generating sports athletes are individuals who play a sport other than football and basketball. Some individuals refer them as the Olympics sports athletes, since these individual or team sports were sanctioned by the International Olympic Committee. There were 170 scholarship student-athletes (80.2%) among the 212 participants.

Instrumentation

A survey questionnaire, which contained a total of 27 items, was created based on the concepts and framework of several past studies by Coash and Tully (2015), Misra and McKean (2000), and Chen, Mason, Middleton, and Salazar (2013). The surveyed items cover demographic information (n = 7), open-ended questions concerning expected support for coping with stress (n = 2), a series of 10-point Likert scale items rating the level of agreement on the source and perception of stress (n = 12), and self-reported time spent on daily activities (n = 6). The statement ratings of perceived stress and anxiety, the range from 1 to 10, where 1 equals "strongly disagree" and 10 eauals "strongly agree."

Procedure

Participants were recruited in two main forms. Student were either solicited for responses via face-to-face contract by an e-mail invitation. Originally, a call of response was sent to more than 250 student via e-mail with the support of the institution's athletic academic coordinator. However, only a very small number of respondents had

completed their SurveyMonkey responses (n = 12) within the month of August, 2016. Therefore, the authors decided to reach out to more participants in a variety of locations such as cafeterias, dorms, classroom hallways, and the library from September 2016 to January 2017. We collected an additional 200 completed responses with an attempt of reaching out to 240 student. The online survey contained a consent letter that informed the participants of their rights and we obtained their consent to be included in the study.

Results

Student participants of the sample slept nearly 7.5 hours per day and spent about six hours devoted to their academic work and duty (including studying and attending classes). Regardless of whether they were athletes, on average they all engage in exercise and sports for more than 2.6 hours each day. This implies the sample represents a group of physically active individuals who spend a great deal of time engaging in physical activities. Statistically speaking, there is a significant time difference (p < .01) spent by student-athletes and non-athlete students in two daily activities: exercise and maintenance (see Table 4). Logically, student-athletes spent significantly more time in practice and exercise than non-athletes. However, athletes also tend to spend less time on the maintenance activities, and apparently spend a little more time studying each day than their non-athlete peers (2.8 vs 2.6 hours).

Based on the exploratory factor analysis (see Table 5), the authors identified four types of perceived stress and anxiety. They are: (1) time concern and negative thoughts, (2) physical and psychological stress, (3) pressure to perform, and (4) earning respect from others. Overall, the highest level of stress and anxiety were associated with the factor of "pressure to perform". In addition, participants also reported relatively high ratings on two items, "worry about maintaining good grades" (M = 7.3) and "constantly feel tired" (M = 7.0). According to the reported number in Table 4, the participants do not seem to exhibit a very high level of stress concerning lack of time, negative thoughts, and earning respect from others (M < 6.0). Nor did they express having experienced great physical and psychological stress (M < 5.0).

The authors further compared the participants' perceived daily stresses based on various variables such as gender, race, academic standing, athletic status, and others. Apparently, no gender difference was found among any of the factors. Out-of-state students spent significantly more practice/exercise time than in-state students (4.2 vs. 3.5 hours; p <.05). Hispanic students spent more practice/exercise time than other racial groups (p < .05).

In general, more differences in time spent on daily activities and ratings of perceived stress were observed based on participants' athletic involvement and experience. For example, student-athletes (who received athletic scholarship) had a significantly high rating on "pressure to perform" (Factor 3) than those of non-athletes and intramural participants (p < .05). Surprisingly, they spent significantly more time engaging in practice/exercise (4.9 hours per person, p < .05) than football and basketball players. In comparison, non-athlete students spent

less time attending classes (not statistically significant), but spent much more time engaging in leisure and social activities (about 5.2 hours; $p < .01$), and slightly more time on maintenance activities.

The open-ended responses revealed that the top-four popular strategies to cope with stress were working out, listening to music, sleeping and eating. The regression analysis (Table 6) indicated the best indicators of participants' happiness toward their campus life were "pressure to perform" and "physical and psychological stress". This means greater happiness would result from an appropriate level of pressure to perform, and low level of physical and psychological stress.

Discussion and Conclusions

As past studies have pointed out, student-athletes experienced significant pressure to perform academically and athletically. Our findings agree with those studies since the ratings of perceived pressure to do well both on and off the field were high (8.2 on a 10-point scale). Student-athletes also consistently worry about maintaining good grades and feel tired. However, participants' overall happiness toward their campus lives was also positively correlated with the perceived level of "pressure to perform". "Pressure to perform" is considered a double-edged sword that can inspire a student-athlete to succeed or break his/her spirit. Literature indicates student-athletes were able to gain a greater level of self-esteem and confidence after overcoming great challenges (Richards & Aries, 1999; Watson, & Kissinger, 2007). Thus, it is not necessarily negative that student-athletes feel pressure to perform well both academically and athletically.

Although it is evident that student-athletes spent over 20 some hours on their athletic duties and responsibilities, it is encouraging to observe that they were equally responsible for handling their academic tasks. They spent slightly more time attending classes and completing their homework. They also reduced time for social/leisure and maintenance activities to compensate for lack of personal time. Perhaps student-athletes' limited time spent in social and leisure activities practically reflects the issue of having a hard time in engaging in the campus life and feeling isolation (Armstrong & Oomen-Early, 2009; Beamon & Bell, 2006; Miller, 2002). Nevertheless, student-athletes devote as much effort and time (if not more) on their academic endeavors as non-athlete students. The authors believe that mass media does not accurately portray the situation while claiming that all competitive student-athletes only focus on athletic performance while intentionally neglecting their academic responsibilities. In fact, the majority of student-athletes who compete at the regional or mid-major Division-I institutions value their college education and do not solely invest their time and energy in athletics in pursuit of a professional playing career.

To combat the problem of student-athletes focusing too much attention on their athletics, the authors believe the solution must rely on the following triad of supportive groups: faculty, coaches, and academic counselors. These groups are most likely to impact student-athletes' academic learning experience, shape their career aspiration, and foster their

educational goals. If successfully applied, student-athletes will not feel alone and scared, when they seek curricular guidance, support for completing academic work, and career advices. We also agree with Boyd's comment (2012) that every university must systematically assess all the entering athletes to determine their academic preparedness whether they are high-risk. Once the high-risk athletes are identified, individualized program should be developed to support them and enable them to learn effectively. Monitoring the academic performance of African-American athletes can be an effective strategy, since GPA was often strongly related to their self-esteem and level of anxiety (Killeya, 2001). The program also should include a structured study program, using the universities tutorial resources, monitoring their academic performance, engaging all coaches, and demanding the best not only from the at-risk student-athletes, but from all student-athletes.

In general, the stress coping mechanisms adopted by the participants (i.e., working out, listening to music, sleeping and eating) tended to focus on emotion-coping and avoidance strategies. There should be training programs to help athletes learn how to reassess stress and develop proper strategies to address the problem. More educational seminars and training can be offered to underclassmen student-athletes to teach them about positive self-talk and focusing techniques. Counselors and coaches need to become aware of athletes' inappropriate coping practices such as over eating and excessive exercise. In addition, athletes should be encouraged to get sufficient rest and sleep. Our findings indicate that out-state athletes and Hispanic minority athletes spent more time in athletic activities. Furthermore, out-of-state students who cannot easily travel home may cause them to become more socially isolated, which causes them to become more devoted to athletics. While trying to monitor athletes' psychological status, these two groups of people may be high risk individuals that are susceptible to a greater level of stress.

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Table 1. Different mechanisms for coping stress

Category	Description
Problem focused coping	A focus on strategies to reduce or resolve the problem
Emotion-focused coping	Strategies to reduce negative emotion/distress
Avoidance	Removal of the stress or one's self from the stress
Appraisal-focused	Reevaluation of the situation and adjustment of the priorities

Table 2. Distribution of participants in academic performance categories

GPA Score	Number	Percentage
Below 2.00	4	1.9%
2.00-2.49	46	21.7%
2.50-2.99	74	34.9%
3.00-3.49	54	25.5%
3.50-4.00	34	16.0%

Table 3. Distribution of participants in different sports

Sport category	Number	%
Football & basketball	68	32.1
Non-revenue generating sports	102	49.1
Intramural and club sports	14	6.6
None athletes	28	13.2

Table 4. Average time spent in daily activities (Mean & SD; Unit: in hours)

Activity	Athletes	Non-Athletes or Rec. Athletes
Sleeping	7.4 (1.2)	7.5 (1.2)
Practice/Exercise**	4.1 (1.5)	2.6 (1.6)
Classes	3.8 (1.7)	3.4 (1.5)
Leisure/Social**	2.8 (1.4)	4.6 (2.4)
Maintenance	2.6 (0.9)	2.7 (1.8)
Study	2.8 (1.4)	2.6 (1.4)

** $p < .01$

Table 5. Factors on perceived stress and anxiety

Factor and Items (KMO: .710; loading: 67.03%)	**Mean**	**% of Variance**
Factor1: Time concern and negative thoughts	5.7	23.7%
j. Don't have time to rest or sleep	5.7	
c. Constantly feel tired	7.0	
i. Rarely have time for social activity	5.5	
f. Fail to live up to expectation	4.2	
Factor 2: Physical and psychological stress	4.6	17.4%
d. Lack of motivation attending classes stress	4.7	
b. Worry about maintaining good grades	7.3	
k. Feel depressed daily	2.8	
e. Lack of energy	3.8	
Factor 3: Pressure to perform	8.2	13.1%
a. Feel the pressure to do well academically	8.7	
g. Feel the pressure to perform on the field	7.8	
Factor 4: Earning respect	5.3	12.8%
h. Pressure and need to earn respect	5.3	

Table 6. Regression analysis on best indicators of participants' happiness toward their campus life

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.663	1.102		3.324	.001
	Pressure to perform	.474	.134	.337	3.523	.001
2	(Constant)	4.995	1.165		4.288	.000
	Pressure to perform	.518	.131	.369	3.962	.000
	Physical & Psychological stress	-.360	.128	-.262	-2.817	.006

Model 1 formula:

(Participants' happiness toward their campus life) = 3.663+ (Pressure to perform)* .474

Model 2 formula:

(Participants' happiness toward their campus life) = 4.995 + (Pressure to perform)* .518- (Physical & psychological stress)*.360