PEAK PERFORMANCE FOR STUDENT-ATHLETES

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Recently much attention has been directed toward the development of support programs for student-athletes (Lanning, 1982; Nelson, 1982; Sowa & Gressard, 1983; Whittemore, 1985). The legitimacy of the programs is readily substantiated in terms of the view of the student-athletes as a special population, a need for integration of student-athletes into the mainstream of university life, transitional concerns for freshmen, and descriptions of model courses ranging from testing to interventions. In essence, academic support programs have become a vital component of athletic departments, especially at NCAA Division I institutions.

Based on divergent concerns, the scope and role of counseling has become, by necessity, asystematic. Thus, when initiating developmental programs for student-athletes, it seems prudent to follow the advice of Remer, Tongate, and Watson (1978) who suggested that academic support programs must first meet academic- and performance-related needs before attempting long-range developmental goals.

Using the subtle admonition as a guide, the academic support system of the Athletic Department at the University of North Texas proposed an exploratory project to complement its existing counseling, study-hall, and tutorial services. A course was designed for freshman student-athletes which focused primarily on performance-enhancement techniques that could be employed for peak performance in both athletics and academics.

THE GAME PLAN

The academic advisors, working with a sport psychologist, selected freshman football players as the target group for their first attempt at reinforcing the use of psycho-educational techniques across the athletic and academic dimensions. Subsequently, the football coaching staff was asked to identify three major psychological constructs they believed would lead to optimal performance in football for the forthcoming season. Based on the coaches' rankings of the perceived importance of specific constructs for athletic success, the prioritized list included goal-setting, stress management, and visualization (imagery), respectively. These constructs were then used as the focal points for a 15-week class designed to demonstrate similarities between concepts used during football practices and games and academic situation. Samples of comparable patterns were game/test, practice/homework, pregame jitters/pretest anxiety, work as a team/study in groups, and review plays in your mind/mentally rehearse important points to remember. It was hoped that academic appeal and enthusiasm could be generated for student-athletes by relying on their high motivation toward athletics.

Fifteen freshman football players participated in the project. The group met four days a week for 30 minutes per day prior to a designated study-hall period. Athletic and academic pre-posttest measures were obtained using goal-setting contracts, competitive stress inventories (Sports Competition Anxiety Test—SCAT; Competitive State Anxiety Inventory-2 with cognitive, somatic, and confidence subscales—CSAI-2), confidence questionnaires (Trait-State Confidence Inventory—TSCI), and self-reports of vividness and controllability during visualization (Vealey, 1986). The same sports tests were used to evaluate academic traits by substituting academic words and phrases for the sport-related terminology. Additionally, grade point averages for fall and spring semesters were obtained.

Sessions included lecture and discussion, interaction, role-playing and guest speakers. Additionally, student-athletes participated in applied laboratory experiences such as progressive relaxation techniques or imagery of the successful execution of a football play. Each concept was introduced first from the athletic perspective followed by a transition to the academic environment. Interspersed among the psycho-educational techniques were topics about personal health, career opportunities, and lifestyle patterns of college students. A general semester plan is outlined below:

Weeks 1-5	Introduction, Pretests, Goal-setting Strategies
Weeks 6-10	Personal Health Issues, Stress Management
Weeks 11-15	Visualization, Career Opportunities, Posttests, Personal Athletic-Academic Plans for Peak Performance

GAME PERFORMANCE

Data from the anxiety and confidence measures were analyzed using t-tests. Although the results indicated a general lowering of trait anxiety for the group from pretests to posttests, the differences were nonsignificant. However, when the group was divided into HI GPA (greater than 2.0) and LO GPA (less than 2.0), a number of findings was noted.

Table 1

Comparison of High and Low GPA Athletes
On Academic Measures of Confidence and Anxiety

1.		Pretest			Posttest		
		M	SD	TSCI	M	SD	t
Hi GPA		6.2	1.11		6.9	.44	-.169
Lo GPA		6.8	.82		6.6	1.10	.34

2.		Pretest			Posttest		
		M	SD	SCAT	M	SD	t
Hi GPA		19.6	3.32		18.3	5.78	.11
Lo GPA		22.5	3.72		18.3	2.42	3.14*

	CSCI-2						

3.		Pretest			Posttest		
		M	SD		M	SD	t
Hi GPA	Cog.	16.8	5.74		20.3	8.73	-1.11
	Som.	14.0	3.74		17.8	8.00	-1.06
	Conf.	26.8	4.00		26.8	6.28	.00
Lo GPA	Cog.	22.6	5.67		17.8	4.89	3.45*
	Som.	16.3	3.83		17.8	7.52	-.72
	Conf.	25.1	4.71		22.0	7.37	1.19

*p. < .05

The LO GPA group had significantly less trait anxiety ($p = <.05$) from and cognitive state anxiety ($p = <.05$) from pre- to posttests on the academic measures. Intuitively, it seems that lowering the anxiety level of athletes is a desirable outcome of the project. However, it is possible that such a reduction in academic arousal related to assignments and tests resulted in a lack of appropriate motivation needed to enhance academic performance.

Table 2 depicts data on the athletic measures.

Table 2

Comparison of High and Low GPA Athletes
On Athletic Measures of Confidence and Anxiety

1.		Pretest			Posttest		
		M	SD	TSCI	M	SD	t
Hi GPA		7.0	.56		6.9	1.10	.52
Lo GPA		6.7	.98		7.7	.81	3.22*

2.		Pretest			Posttest		
		M	SD	SCAT	M	SD	t
Hi GPA		23.3	3.01		20.3	3.07	5.20*
Lo GPA		22.1	4.71		20.6	3.50	.70

CSCI-2

3.		Pretest		Posttest		
		M	SD	M	SD	t
Hi GPA	Cog.	17.5	5.24	19.1	6.62	-1.75
	Som.	20.0	5.10	27.0	3.90	-.94
	Conf.	24.8	4.10	27.0	3.90	-.94
Lo GPA	Cog.	18.5	3.10	16.5	2.84	1.01
	Som.	17.6	7.76	19.0	3.80	-.70
	Conf.	27.0	4.20	22.6	3.50	2.19

*p. $< .05$

The HI GPA group demonstrated a lower trait anxiety ($p = <.05$) on the posttest. Perhaps student-athletes learned to utilize and apply performance enhancement techniques developed in the counseling performance

enhancement techniques developed in the counseling program to control athletic as well as academic stress. Additionally, it is interesting to note that although the LO GPA group reported significantly greater trait confidence ($p = <.05$) from pre- to posttests, state confidence scores decreased. These fluctuations may be due to the athletes registering unrealistic assessments of their athletic abilities during their redshirt fall season and spring practice. Further, HI GPA athletes possessed average-to-high original scores on the confidence measure.

In sum, it is important to recognize that overall trait anxiety levels were reduced, and when viewed in terms of GPA, the reduction was significant. The results, however, cannot be attributed only to the casual effects of the program & orientation activities; assignments, information, and stress management). It is probable that many other factors such as adjustment to college life, gaining new friends, or successful experiences on and off the field accounted for the lowered anxiety.

To better understand the impact of the psycho-educational program, student-athletes were asked to rank-order from high to low the importance of activities specific to the program. Feedback from the student-athlete group revealed that the following topics were perceived as the most beneficial to them: presentation by other student-athletes about academic or personal priorities, drug and alcohol tapes and discussions, nutrition facts, sexuality and date-rape information, and minority issues on campus, respectively. The psychological constructs of goal setting, stress management, and visualization that were used as the main points for developing peak performance in football and academics were rated as moderately informative and helpful.

After conducting this year-long exploratory program, two conclusions were reached. First, a reduction of anxiety in sport and academic settings occurred for freshman football athletes at the end of two semesters, and secondly, student-athletes preferred personal-social topics over performance-enhancement topics.

GAME EVALUATION

Based upon the conclusions, it seems that coaches concerned with positive athletic and academic experiences for freshman student-athletes must understand that a period of time for general orientation and adjustment to college life is needed prior to concentration on specialized performance enhancement techniques, even though these same techniques mediate both athletic and academic performances. For example, it is possible that most freshman players fail to make the starting line-up not because they lack experience or skill but because there is an "overload" of personal and university demands that reduces peak physical performance. Further, academic counselors and advisors who work with athletes should be sen-

sitive to the personal, social and emotional needs of student-athletes, as well as the obvious academic concerns. By designing proactive programs that also address unique psycho-social issues, a more holistic strategy can be employed by academic support systems. A sample of a progressive developmental program tailored to academic classification might be—

    A. Freshmen: Personal, Social, & Emotional Plans

    B. Sophomores: Athletic/Academic Performance Techniques

    C. Juniors: Career Development Training

    D. Seniors: Support Groups & Social Networks for "Life After Sports"

To accomplish this task, communication between counselors and coaches must be open and clear, and take place on a daily basis.

REFERENCES

Lanning, W. (1982). The privileged few: Specialized counseling needs of athletes. Journal of Sport Psychology, 4, 19-23.

Martens, R. (1977). Sport competition anxiety test. Champaign, IL: Human Kinetics.

Martens, R., Burton, D., Vealey, R.S., Bump, L.A., & Smith, D. (1982). Cognitive and somatic dimensions of competitive anxiety (CSAI-II). Paper presented at NASPSPA Conference, University of Maryland, College Park.

Nelson, E.S. (1982). The effects of career counseling on freshman college athletes. Journal of Sport Psychology, 4, 32-40.

Remer, R., Tongate, R., & Watson, J. (1978). Athletes: Counseling the overprivileged minority. The Personnel and Guidance Journal, 56, 626-629.

Sowa, C.J., & Gressard, C.F. (1983). Athletic participation: Its relationship to student development. Journal of College Student Personnel, 24, 236-239.

Vealey, R.S. (1986). Imagery training for performance enhancement. In J.M. Williams (Ed.), Applied sport psychology (pp. 209-234). Palo Alto, CA: Mayfield Publishing Co.

Vealey, R.S. (1986). Conceptualization of sport-confidence and competitive orientation: Preliminary investigation and instrument development. Journal of Sport Psychology, 8, 221-246.

Whittemore, W. (1985). The college student-athlete: Special needs and development interventions — A survey of the literature. The National Advisor, 12, 22-33.