Working With College Athletes, Coaches, and Trainers at a Major University

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Athletic departments in colleges and universities are beginning to recognize the role a sports nutrition professional plays in providing both clinical nutrition services to athletes and nutrition education programs to teams, coaches, and trainers. Traditionally, sports nutritionists have been viewed as capable of counseling athletes toward improved nutrition behaviors for improved performance outcomes. More globally, a sports nutritionist at a major university can develop and implement nutrition education programs for athletes that can be implemented in alternative situations to effect the greater student body. Menu changes in dining facilities, expanded dining hours, and campus workshops on eating disorders, weight gain, or weight loss are examples of programs created by a university sports nutritionist.

Key Words: sports nutrition, nutrition education, communication, program development

An Historical Perspective

For the past 9 years, male and female varsity athletes at Penn State University have had the benefit of a sports nutritionist. From individualized nutrition counseling to team talks and body fat analysis, the sports nutrition position at Penn State is recognized as an integral part of athletics. The position, jointly created through the Athletic and Nutrition Departments, began in 1985 as a 20-hours-per-week graduate assistantship. A Penn State graduate student in nutrition who was also a registered dietitian (RD) was eligible for the position. During the early years an expertise in sports was desirable but unlikely. Consequently, an interest in working with athletes, coaches, and trainers became the primary criteria.

Four female graduate students held the position of sports nutritionist for Penn State athletics between 1985 and 1991, establishing the foundation for the country’s first full-time sports nutrition faculty position. Today, the Nutrition and Athletic Departments jointly fund the position, contributing 25% and 75%, respectively. The position title, Director of Sports Nutrition, falls within The Penn State Center for Sports Medicine, a unique organization in the College of

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Beyond Sports Nutrition Counseling

The position of Director of Sports Nutrition was established primarily as a clinical position. Counseling athletes, developing nutrition education materials specific to a sport, obtaining body composition data, and providing guidance to a coach or trainer on an athlete’s weight, eating or drinking habits, and planning training table menus were fundamental job expectations. However, a major university, offering athletes multipurpose services from diverse resources, was in need of direction regarding nutrition-based policy development. Consequently, along with the 1,000 varsity athletes who participate on the 28 varsity sports teams, the sports nutritionist serves as a conduit between the myriad of individuals working with athletics. The following list provides a comprehensive overview of those with whom the Director of Sports Nutrition interacts and what such interaction may entail:

1. Director of the Center for Sports Medicine: Weekly interaction via meetings, telephone, and memos that pertain to the following: services as nutrition editor for the monthly sports medicine newsletter, collaboration on publications for international and national Olympic committees, and participation as a faculty member at research symposia or conferences. Activities generated by the Director of the Center for Sports Medicine are highly visible and bring academic and clinical relevance to the position of Director of Sports Nutrition.

2. Director of Sports Medicine Research: Research project collaboration.

3. Team physicians (3): Make referrals to and accept referrals from the physicians, meet to review cases, work on committees for policy development. For example, two team physicians were included on an eating disorders steering committee that was formed by the Director of Sports Nutrition. Meetings were bimonthly and were aimed at establishing criteria for the university’s athletic department to determine an eating disordered athlete’s risk as a competitor or team member.

4. Head coaches (28) and assistant coaches (36): Make telephone calls to follow up on concerns with individual athletes. Schedule team meetings to discuss specific sports nutrition issues (e.g., alcohol and dehydration, what to eat while traveling, pregame meals). Letters to coaches are sent periodically to inform them of new sports nutrition issues, to remind them of the available services, or to request their participation in a study. The sports nutritionist also plays a role as a recruiting tool, available to meet potential athletes and their parents when visiting campus.

5. Trainers (16): Discuss pre- and postgame meals for away events, schedule body composition assessments, discuss nutrition supplementation, and follow-up on weight gains or losses that the coach has determined appropriate.

6. Sports psychologist: Make referrals to and accept referrals from the sport psychologist, meet to discuss a student athlete with whom both are working, and participate on the eating disorders steering committee.
7. Counselors from university health service’s Counseling and Psychological Services Program (4): Many student athletes seek eating disorder counseling from clinical psychologists employed by the university’s health center. Make referrals to and accept referrals from the psychologists, meet to discuss cases, and participate in eating disorder steering committee.

8. Director of Athletics (men’s and women’s) and Assistant Director of Athletics (men’s and women’s): Regular interaction via telephone or written memos regarding policy concerns with the National Collegiate Athletic Association (NCAA) (e.g., food plans, meal money, training table rules, problems with coaches, and eating disorder concerns).

9. Sports information personnel: Since weight gains and loses are listed in sports programs and announced at games or events, the public is interested in athletes’ eating habits. The sports nutritionist provides positive, printable information on training table meals, composition of pre- and postgame meals, weight loss or gain strategies a particular athlete followed, recipes of an athlete’s favorite foods, and insights into eating disorders that plague certain athletic teams. This information has appeared in alumni magazines, football newsletters, football game program guides, ESPN television, and local radio and television.

10. Alumni services of Penn State: The popularity of athletics at a major university typically means that alumni continue to follow the successes and failures of their favorite teams. The sports nutritionist represents Penn State at numerous local and national alumni association functions as a spokesperson for athletics.

11. Food service personnel: Penn State has one training table, a dining hall that serves one daily meal to three athletic teams (football and men’s and women’s basketball). The sports nutritionist is able to plan training menus, guide the food service director in selection of foods, and use the training table as an educational forum.

Balancing Responsibilities

The Director of Sports nutrition can assume responsibilities that may be categorized in three areas: clinical/counselor, nutrition education specialist, and administrator/negotiator. Each category of responsibility requires a set of skills necessary for positive interaction at the level needed at a major university. Balancing responsibilities is the job of the sports nutritionist and the approach to the position must be proactive.

The clinical portion of the position revolves around counseling the student athlete on personal nutrition issues. Three days per week are reserved for this activity. College student athletes have schedules that are difficult to accommodate due to morning workouts, daily classes, and team practice from 3–6 P.M. In addition, at least 50% of all athletes eat in a university dining hall, further complicating schedules due to the facility’s restricted hours. Athletes hurry from practice to shower, possibly stopping in the training room for taping or rehabilitation prior to arriving breathless at the dining hall. From there, if they are freshmen, a mandatory study hall follows dinner. This inflexible schedule of athletes demands flexibility on the part of the sports nutritionist in order to promote the use of nutrition services.
Athletes make nutrition counseling appointments through one of three primary avenues. The first is through the coach or trainer. The coach may call and ask the nutritionist to directly contact the athlete or may more informally request the athlete to make an appointment, usually for weight management or concern for eating habits.

The second avenue may be a formal referral by a team physician or sports psychologist. These referrals occur when an athlete appears with low iron, poor eating habits, an eating disorder, nutrition supplementation misuse, a history of chronic dieting, and any request for weight management guidance. Weight loss advice is sought by approximately 80% of all athletes requesting appointments. The majority seeking weight loss guidance are females and principally, although not exclusively, participate in a sport in which body weight and body fat are monitored regularly by the athlete, coach, or trainer.

The third avenue for appointments is self-referral, that is, athletes interested in developing personal nutrition strategies to promote performance. Weight loss and gain strategies, fluid replacement, nutrition supplementation issues, vegetarian diets, pre- and postevent food choices, eating while traveling, and good training diets are reasons typically cited for making appointments. In addition, athletes may choose the sports nutritionist as the first person to whom they reveal their eating disorder. In this case a referral to the team physician and a clinical psychologist is made with the athlete’s consent while in the office.

**Counseling Athletes**

The first appointment with an athlete requires 1 hour to allow for a nutrition history, 24-hour food recall, body composition assessment, and discussion of the reason for the appointment. The Sports and Cardiovascular Nutritionist’s (SCAN) Practice Group of the American Dietetic Association has written a practice manual titled *Sports Nutrition: A Guide for the Professional Working With Active People*. The manual contains excellent forms for collecting dietary and body composition data, as well as a wealth of information for someone beginning a career in sports nutrition.

Documentation of the appointment is critical for follow-up visits and referrals. Referral of athletes to a psychologist, team physician, or any other resource requires consent in writing. Prior to sharing any disclosed information, a consent form must be obtained from the athlete. This includes sharing information with a coach, trainer, or concerned parent. Confidentiality of a student athlete’s problems are of primary importance, as they could influence eligibility of the athlete to compete or could influence selection for a team event. Prior to violation of this principle, the sports nutritionist should consult the team physician, the health professional responsible for determining whether a condition precludes an athlete’s ability to compete or perform.

Follow-up appointments are made based on nutrition goals and need. For athletes developing weight-management strategies, a 15-minute weekly appointment may be appropriate. Eating disordered athletes may be seen weekly for one hour to support their weekly meetings with the clinical psychologist. Athletes who make appointments to determine the quality of their diet and get tips on performance and nutrition could return whenever they choose.

Appointments are free and unlimited to all varsity athletes. For the past 3 years, the appointment “no-show” rate has been less than 2%.
The Nutrition Education Specialist for Athletes

The sports nutritionist develops and provides nutrition talks to any team upon request. The average number of talks per team per semester is two. Requests are made by the coach, who determines the subject and time allowed. Typically, 20–30 minutes is taken from practice for the nutrition presentation. Subjects can range from general topics such as eating on the road or precompetition meals to very specific situations related to a particular event.

When Penn State became part of the Big Ten Conference, there was a flurry of interest in sports nutrition. The women’s swimming coach wanted specific advice for his athletes on what to drink while flying, because flying to events would be new for his team. A surge of weight gain presentations were requested with intentions of helping athletes learn how to “get bigger” with good nutrition strategies.

In addition to team talks, the sports nutritionist develops nutrition education print materials for use with individuals or for a specific team. Eating plans, recipes, tips on weight management, eating in the dining hall, how to avoid alcohol, the need for carbohydrates, antioxidant nutrients, vitamin-mineral supplementation, vegetarianism, and protein supplements are hand-outs used frequently. Each can be modified to add the specific team name and presentation date, thus personalizing the information to those specific athletes.

The Pawprint, a monthly newsletter for athletes, is another information vehicle for sports nutrition. It provides a means for making nutrition services visible and allows an opportunity to interact with those athletes who may not view themselves in need of a personal nutrition counseling appointment.

Finally, the training table, which hosts three varsity teams, provides an excellent opportunity for the sports nutritionist to influence food purchasing and menu planning, plus create nutrition education strategies that may alter athletes’ food selections at point of choice. For example, one nutrition education strategy conducted in 1993 focused on calculating the percentage of fat in all foods served at the training table, including entrées, vegetables, soups, breads, desserts, condiments, and beverages. Cards were placed by each item with either a green, yellow, or red dot by the name of the food. A large poster placed over the utensils indicated that green dots represented low-fat foods (less than 30% of calories from fat per serving), yellow dots represented moderately low fat foods (30–50% of calories from fat per serving), and red dots represented high fat foods (>50% of calories from fat). No additional materials or presentations accompanied this strategy.

After 3 months, a survey of athletes eating at the training table revealed that the “dot system” was effectively assisting athletes in selection of lower fat foods. In addition, food service personnel calculated a 4% cost savings due to a reduction in dessert and red meat consumption. Fish, fruits, and vegetables were eaten more frequently, and athletes reported that they now selected foods based on the color-coded dots.

The effectiveness of the training table nutrition education effort resulted in the implementation of the system in all nine dining halls on campus, thus offering the intervention both to varsity athletes not eligible to eat training table meals and to all other students. This research project demonstrates that the services provided by a sports nutritionist at a major university could have campus-wide benefits.
Leadership and Vision for Sports Nutrition

In the role of administrator, the sports nutritionist is responsible not only for the daily, routine functions of nutrition service operations but also for negotiating opportunities for improving the delivery of services. This may come in the form of grant writing to fund additional clinical assistance, production of a series of nutrition videos for athletes, or a research project on the etiology of eating disorders.

Establishing nutrition policies for the university’s athletic department may be another administrative opportunity. For example, at Penn State, nutrition supplements for weight gain were desired by some coaches and athletes, yet the team budget could not support their purchase. As a result, the athletic administration was solicited for funding and turned to the expertise of the sports nutritionist, requesting evidence for the supplement need.

A study was conducted with the team requesting the supplements, and it was revealed that athletes were regularly skipping meals, influencing weight loss. In addition, there was a high level of efficacy placed upon the supplements versus food. Athletes believed that the supplements, as opposed to food, would help them gain the needed weight. The coach wanted the athletes to gain weight and depended on the sports nutritionist to assure that his goal could be accomplished.

To accommodate both the coach and the athletic administration, a nutrition supplement policy was developed. Student athletes requesting supplements had to follow a three-step protocol: make an appointment with the sports nutritionist for dietary assessment, follow the planned intervention for 2 weeks, and return for a follow-up evaluation. The sports nutritionist could recommend a supplement if the protocol appeared to be followed, and the athlete was still unable to gain weight. The policy was considered reasonable by the coaches and athletic administration and now appears in the student athlete handbook, which is reviewed annually with coaches and trainers.

In addition to more apparent administration responsibilities, creating visibility for the position of sports nutrition through frequent interaction with athletic administrators, coaches, and trainers; contacting sports information sources when an athlete or team has undergone a successful nutrition program; presenting papers at national or international conferences; participating in professional organizations; writing for lay and professional publications; interacting with the University’s alumni associations (valuable financial contributors and sports enthusiasts); and collaborating on research projects with individuals on and off campus keeps sports nutrition a very viable component of the athletic department.

Building Sports Nutrition at Major Universities

Penn State has taken a leadership role in athletics by creating the first university-based full-time sports nutrition position in the country. The value placed on nutrition as an integral component to athletic training and development has been realized here, but it is just the beginning. In 1991, the position description identified counseling varsity athletes, developing and implementing team presentations, working with coaches and trainers to establish pre- and postevent meals, body composition analysis, and weight management strategies as job responsibilities. The description was based on the work accomplished by graduate students working 20 hours a week with 1,000 varsity athletes.
Today, the position description for a sports nutritionist working at a major university would have expanded roles and responsibilities, benefiting not only the athletic community but also the university at large in two valuable directions. First, by developing, implementing, and scientifically testing nutrition education programs for athletes, there arises the potential for application to all students. Second, a sports nutrition course could benefit athletes, as well as multiple majors in the health, fitness, nutrition, and exercise programs. Master’s or doctoral degree sports nutritionists would be appropriate instructors for teaching a course of this nature.

The presence of a sports nutritionist at a major university provides a unique support person for coaches and trainers who typically do not have formal training in nutrition. Consequently, issues of weight management, nutrition supplementation, eating disorders, chronic fatigue due to poor eating behaviors, and body composition assessment can be removed from the shoulders of the coach. Interacting with the team physician, sports psychologist, and athletic administration regarding nutrition issues can all be accomplished through the sports nutritionist.

In summary, opportunities for establishing strong sports nutrition positions at major universities are on the horizon. As research continues to reveal the impact nutrition can have on sports performance and injury prevention, athletic administrations will view sports nutrition from a financially beneficial perspective.