

An Interview With Katherine A. Beals

Louise Burke

Kathy, you are a registered dietitian, working as Associate Professor in the Department of Family and Consumer Sciences at Ball State University in Muncie, Indiana. How did your career path lead you to this point?

I definitely did not travel a straight line to my current career. Rather, my career path was full of twists and turns that eventually led me to my current position as an Associate Professor of Nutrition and the Nutritional Consultant to Intercollegiate Athletics at Ball State University. My undergraduate degree is in political science—my family had their sights set on me becoming a lawyer—however I did manage to acquire a minor in sport psychology. Even while I was working as an intern for the lieutenant governor of the State of California, I was coaching cross-country for a junior high school. I just couldn't get away from athletics. I finally convinced myself (and my family) that politics and law weren't for me, and I went back to school and obtained a Master's Degree in Exercise Science/ Physical Education. I worked as a fitness director for a YMCA for 2 years before returning to Arizona State University to get a Ph.D. in Exercise and Wellness. There I met Dr. Melinda Manore, who mentored me and convinced me to obtain the education and licensure necessary to become a registered dietitian as well. When looking for academic positions, I knew that I wanted one where I could combine my expertise in exercise science and nutrition. Ball State University, with its nationally recognized Human Performance Lab seemed to fit the bill! I have been here at BSU for 5 years now.

Unfortunately, as is true for so many universities, getting the BSU Athletics Department to "buy into" a screening and prevention program for the female athlete triad was not easy. I did nutrition presentations for teams and individual nutritional consults with athletes *on my own time*, with no compensation from either Athletics or my own department for 3 years. I would routinely put in 10–20 extra hours per week with the athletes. Even though it was a huge time commitment (particularly for a non-tenured faculty member!), I felt it was important, and I hoped that eventually the university would feel the same way. Athletics did finally come around and supported the creation of a Performance Team whose mission is *to protect the health and improve the performance of all individuals participating in intercollegiate athletics at Ball State University* . . . Of course, my main priority was to develop a screening / prevention program for the female athlete triad. After 2 years of hard work (and lots of patience) this will finally, at least partly, come to fruition this fall (2002).

L. Burke is Head of the Department of Sports Nutrition at the Australian Institute of Sport and Visiting Chair in Sports Nutrition at Deakin University in Melbourne, Australia. K.A. Beals is with the Department of Family and Consumer Sciences at Ball State University, Muncie, IN.

How did you get interested in the female athlete triad? Clearly, the problems of menstrual dysfunction, disordered eating, and osteopenia were occurring among female athletes long before the “triad” was coined. Do you think that publicity of the female athlete triad has changed the knowledge and practice of female athletes, coaches, and trainers?

I was a collegiate cross-country runner, am a U.S. masters swimmer, and frequently compete in local road races and triathlons. It is probably my involvement with sport, particularly *these* sports, that fueled my interest in the female athlete triad. I was a collegiate cross-country runner during the time when losing your menstrual cycle was considered a sign of optimal training and peak fitness. Those of us who continued to menstruate normally throughout the season were singled out and admonished for “not working hard enough.” I can also remember as if it were yesterday the frequent weigh-ins and the coach’s battle cry of “you must be thin to win.” Being naturally lean, I was never the recipient of her constant scrutiny and frequent criticism, but several of my close friends and teammates were. At least 4 girls on our cross-country team developed full-blown eating disorders, and several others definitely showed the signs of disordered eating. Even today, as a masters athlete, I am amazed at the number of women in my age category and even older who still obsess about their weight and practice disordered eating behaviors! So, I guess you could say I became interested in the female athlete triad and continue to be interested in it because of what I witnessed and experienced as an athlete myself.

I do think that coaches, trainers, and team physicians are more familiar with the disorders of the Triad than they were just 10 years ago—and they certainly know more now than when I was a collegiate athlete! However, I still believe that the knowledge and prevention/intervention efforts lag far behind the magnitude of the problem.

How did you set up your present study? How did you get support from the Division I schools to carry out the survey? What sorts of problems did you face in undertaking the study?

The study was really a joint effort between myself, Dr. Melinda Manore, and our “contacts” at the various universities. Our “contacts” consisted of individuals whom we knew in the exercise science, nutrition, and/or athletics departments at Division I universities and whom we asked for support in carrying out the project. These “contacts” then secured the participation of the athletic teams. The biggest problems were securing the appropriate contacts, which is why there were only 7 schools that participated.

Other people have commented that self-reported information by athletes about disordered eating may not be reliable—for example, Prof. Jack Wilmore found that a large number of female athletes who reported low scores on various eating disorder inventories went on to be treated for eating disorders. How well do you feel that the accepted surveys and inventories for assessing disordered eating cope with the situation of the athlete? Are they too transparent? Are they sufficiently flexible to cope with the world of the athlete? What can we do to collect better data?

I think any time you use self-report surveys you are going to have biased responses. I truly believe that athletes underreport the incidence of disordered eating behaviors on self-report questionnaires; thus, any prevalence estimate derived from

these is going to be an underestimation of the *true* prevalence. Some of the older self-report instruments (i.e., the EDI and EAT) are probably not suitable for the athlete, but unfortunately there are currently no other questionnaires available that have been *sufficiently* validated (although there are several that have been developed recently that show promise). Personally I believe the key to securing honest responses from an athlete on a self-report questionnaire is to be more indirect than direct in the line of questioning. For example, rather than simply asking if the athlete has an eating disorder (as many screening instruments do), the focus should be on more indirect assessments that are less *obvious* such as inquiring about the athlete's body image, menstrual function, and eating habits. Of course, the best way to assess disordered eating is by individually interviewing each and every athlete (vs. using a self-report instrument); however, this is typically not a realistic option!

The female athletes in your survey reported that their ideal weight was, on average, 3 kg lighter than their current weight. Do you have a feeling about the factors that drive the concept of ideal body weight in various sports—and do you think that it has spread outside the traditional issues? For example, we have recently found an increased desire for leanness among female basketball and netball players in Australia, driven by the requirement to wear a Lycra bodysuit on the court, instead of tops and shorts. So here is another group of athletes who are crossing into an “aesthetic” reason for wanting to reduce body fat levels whom we might not have easily identified.

First, I think that most female athletes (or females in general for that matter) want to weigh less than they currently do, so that particular finding did not surprise me too much. However, the finding that the desire to lose weight was equally prevalent among the sports (i.e., not just confined to the more traditional “lean build” sports) was somewhat surprising. I do think that weight concerns have become more prevalent across all sports. I also think that it is not just one thing but, rather, a number of factors that are fueling body weight discontent among female athletes. The pressure placed on female athletes to “look” like an athlete (i.e., lean and muscular) is quite strong—just ask any female athlete! Interestingly, when questioned, most athletes report that the pressure to achieve or maintain a low body weight is self-imposed. Nonetheless, something must be contributing to the pressure they are placing on themselves. It may be the clothing that these athletes are now expected to “squeeze” into. It's interesting to look at how uniforms for female sports have changed (and become increasingly skimpy) over the years. It may also be the general societal pressure on women to be thin. Of course there are still some coaches who believe that the best way to improve athletic performance is to lose weight, and thus they pressure their athletes to meet some questionably derived body weight or body fat standard.

What needs to be targeted to help solve the problem of the female athlete triad—do you think it is fundamentally about the push for female athletes to be at an unnaturally low body fat level/body weight? Or is it sufficient to do better screening of female athletes who have menstrual dysfunction or osteopenia, and concentrate on early intervention in these groups?

I think the educational efforts that have been undertaken by such national organizations, as the NCAA and ACSM are certainly a step in the right direction. Nonetheless, national awareness alone will not solve the problem. Local efforts are equally if

not more important in the prevention and treatment of the Triad. Universities need to be willing to devote the resources required to establish their own education, screening, and prevention programs. All female athletes should be screened for the disorders of the Triad on a yearly basis (ideally during the preparticipation physical). Coaches and trainers must be familiar with the signs and symptoms of the Triad and, most importantly, have a plan of action for dealing with an athlete who presents with one or more of the disorders of the Triad.

There are a few successful programs that I am aware of. The University of Texas at Austin was probably the first to establish a comprehensive program for identifying and combating the disorders of the Triad. Under the direction of Randa Ryan, a Performance Team was created with the goal of identifying, preventing, and treating the triad of disorders. (I believe there is a whole chapter written on this program in the book edited by Brownell, Rodin, and Wilmore entitled, *Eating, Body Weight and Performance in Athletes: Disorders of Modern Society*)... The University of Utah also has a comprehensive screening and prevention/intervention program under the leadership of Dr. Elizabeth Joy. I'm sure there are others as well. These are just the two that I am most familiar with.

What strategies have you used in your work with female athletes about ideal body physique and eating practices?

As the Nutritional Consultant to Intercollegiate Athletics at Ball State University, I work with both the female and male athletes. As might be expected, most of the male athletes are referred to me for weight gain, while the female athletes are referred to me for either weight loss or because they have been identified as suffering from one or more of the disorders of the Triad. Often if a female athlete is referred to me for weight loss, I first determine *who* has decided that the athlete needs to lose weight—was it a coach, trainer, or the athlete herself? I will assess her weight and body composition relative to her current (and past) athletic performance to determine if weight loss will be beneficial (or could negatively impact performance). I would say that at least 50% of the time, there is no physiological or performance rationale for the desired weight loss (regardless of whether the desire for weight loss has come from the coach or athlete herself). That is, there has been no noticeable decrement in performance as a result of the weight gain. Whether weight loss is advisable, I always approach the athletes “diet” in the same way—my focus is on developing a healthful diet, one that will provide the required amount of energy, macro-, and micronutrients needed for optimal performance. My belief is that if the athlete eats correctly and trains adequately, her weight will fall where it needs to be for optimal performance. To this end then, I do not use scales or body fat percentage to measure the athletes “success” but, rather, the degree to which she has improved the quality or “healthfulness” of her diet.