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Psychological Skills Training for Middle School Athletes

by
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Coaches of middle school athletics know how difficult it is to get these adolescent athletes to perform physical tasks with precision and consistency. They are novices to many of the sports. They lack many of the skills necessary to function well either individually or as a team. They cannot focus or concentrate on tasks for more than a short time, they do not know how to handle stress so that it will not interfere with their performance, and their communication skills are low to nonexistent, leading to lowered group cohesion and productivity. They need to be trained in how to perform skills mentally as well as physically in order to become the best athletes and teams they potentially can be. That is where psychological skills training (PST) comes in.

Take the 18 members of last years' middle school girls' soccer team as an example. They were so un-organized that they took anywhere from 15 minutes to 1 hour to get to the locker room at the end of school to dress for practice. They straggled out to the field and only partially did warm-up exercises. They made fun of certain members, usually for a different reason each day, and they criticized unskilled performances. They complained about not getting the ball enough because so-and-so was a ball hog and never passed off, yet they didn't work to get open to receive a pass. The goalie might or might not show up for practice or a game which threw the entire team into a stressful panic. These scenarios varied from bad to worse on any given day. The

Strength Training Q & A #6

by
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Does the Strength Shoe really work?

The Strength Shoe is a modified athletic shoe with a 4 cm thick rubber platform attached to the front half of the sole. This attachment prevents the heel from striking the ground during exercises and drills. The shoe is touted as an effective method of increasing ankle flexibility, calf circumference and "speed, quickness and explosive power" when used in a plyometrics-based training protocol. Sounds tempting, doesn't it?

Two recent studies examined the claims of the manufacturer. One study by Pezullo and his associates appeared in *The Journal of Orthopaedic and Sports Physical Therapy* (17, No. 1). The researchers sought to determine if a 10 minute jumping program using the Strength Shoe could improve vertical jump. The 31 test subjects were randomly assigned to one of three groups. One group performed a 10 minute jumping program wearing the Strength Shoe. A second group did the same 10 minute jumping program in regular athletic shoes. The third group acted as the control. The results of the study were that subjects who performed a 10 minute jumping training program in Strength Shoes (or regular athletic shoes for that matter) did not significantly increase their vertical jump height greater than the subjects who acted as controls.

The second study by Cook and his colleagues was published in *The American Journal of Sports Medicine* (21, No. 3). This research was conducted by the Department of Orthopaedic Surgery at the Tulane University School of Medicine. In this 8 week study, 12 subjects performed the training protocol recommended by the manufacturers of the Strength Shoe. The subjects were randomly assigned to two groups. One group wore Strength Shoes during the workouts while the other group wore their usual training shoes. The workouts lasted about 45 minutes and were performed 3 times per week. Despite following the suggested protocol of the manufacturers, no enhancement of flexibility, strength or performance was observed for participants wearing the Strength Shoe at the end of the 8 week training program.

In this particular study, it's important to note that one-third of the subjects complained of anterior tibial pain (shin splints) and one subject withdrew from the study because the pain was severe. All of the subjects were previously involved in strenuous activities and none of the subjects reported leg pain prior to the study. Additionally, no subject wearing normal training shoes reported leg pain. As such, the researchers felt that "the pain was device-related." In summation, the researchers concluded, "The use of the Strength Shoe cannot be recommended as a safe, effective training method for development of lower leg strength and flexibility."

Help, I need to lose weight! Can you give me some safe, proper guidelines?

At one time or another, almost everyone has felt the need to lose weight. The need for weight loss should be determined by body composition rather than bodyweight -- especially if you're an athlete. In general, athletes are larger and more muscular than the rest of the population. For instance, suppose two people were 6 feet tall and weighed 200 pounds. You might think that they were both overweight. However, what if one person had 20% body fat and the other person had 10% body fat? If this were the case, then only one person needed to lose weight -- the one with the higher percentage of body fat. As such, the most reliable determinant for weight loss is your percentage of body fat. This can be measured in a variety of ways, although using skinfold calipers is generally considered to be the most practical method of assessment. Normal body fats for athletes are lower than the average population, ranging from about 12-22 percent for females and 5-13 percent for males.

Losing weight is simply a matter of arithmetic: If you use up more calories than you consume, you'll be in a "negative caloric balance" and lose weight. However, a closer inspection of the mathematics of losing weight is necessary.

The primary goal of a weight loss program is to decrease your body fat. One pound of fat has about 3500 calories. As such, if you expend 500 calories per day below your caloric needs (i.e. a _500 caloric "deficity"), you'll lose one pound of fat in 7 days [700 cals/day x 500 cals = 3500 cals]. In this instance, if you need 3000 calories per day to maintain your bodyweight, you'll have to consume 2500 calories per day. In addition to reducing your caloric intake, a caloric deficit can also be achieved by increasing your energy expenditure -- such as through additional aerobic activity. In fact, proper weight loss should be a combination of dieting and exercise.

The amount of weight loss will determine whether the caloric expenditure actually came from fat or muscle. If you lose more than about 2 pounds per week, it's likely that some of this weight reduction will be the result of lost muscle tissue and/or water.

Weight loss must be a carefully planned activity. Skipping meals -- or all-out starvation -- isn't a desirable procedure of weight loss, since you still need fuel for your athletic lifestyle. Oddly enough, losing weight should be done in a fashion similar to gaining weight. Frequent -- but smaller -- meals spread out over the day will suppress your appetite. Drinking plenty of water will give you a feeling of fullness without any calories.

About the Author

Matt Brzycki has been the Strength Coach and Health Fitness Coordinator at Princeton University since August 1990. Coach Brzycki has authored more than 90 articles on strength and fitness and a book, A Practical Approach to Strength Training, which is in its second edition. He has also coauthored the book Conditioning for Basketball with Shaun Brown, Strength Coach for the University of Kentucky basketball team.