KEEPING YOUR MIND IN THE GAME IMPORTANT IN NCAA TOURNAMENT, OTHER HIGH-PRESSURE SPORTING EVENTS?

MANHATTAN -- What's the difference between a basketball player who chokes up after missing the tie-breaking shot in the big game, and one who regroups after his shot doesn't fall and is able to drop back on defense to keep his team in the competition?

According to a counselor at Kansas State University, in contests where all of the players are at the top of their game physically, the difference in performing in high-pressure situations -- such as the NCAA basketball tournament -- is all about the ability to manage stress, anxiety and arousal levels.

Fred Newton, director of University Counseling Services at K-State, said there are certain mental aspects of one's performance that can influence the ability to control anxiety levels.

"When you are a high-level performer, the anxiety can play a role in that," said Newton, who is also a counseling and educational psychology professor. "The initial role is that it gets you up and gets you ready, focused and excited. But if it's too high, too much anxiety can cause an arousal response measured by physiological change such as sweat, muscle tension, heart rate change and other behaviors."

Knowing and controlling the mental aspects of a game may place one athlete above another's skill level.

"For athletes who have been recruited to a Division One school, we know their skill level is in the upper percentiles," Newton said. "The difference between one athlete in the 98 percentile and another in the 97 percentile is primarily mental."

Although arousal, which means activation of the body and mind, is a natural response, athletes have found various strategies to find a balance in their arousal levels. By doing so, Newton said, players may work up to their optimal level of performance -- or get "in the zone."

"I have worked with a basketball player who said he was always told to get up before a game. Then he would go to the game and in the first five minutes, the ball would fall off his hands," Newton said. "He learned that before the game, rather than getting excited, he needed to do things to settle himself down."

Through a program called biofeedback, Newton said players can learn to manage their emotional ups and downs. Biofeedback is a computerized program that monitors various stress levels. Athletes can learn self-regulation methods to control the mental aspects of their performance.

"In basketball, you want the players to be at the right level of arousal. If they are pretty highly aroused, it is useful for doing certain things like jumping, running fast, playing intense defense," Newton said. "But when you step up to the foul line, you want to pull all of that down and get jumping, running fast, playing intense defense," Newton said. "But when they are pretty highly aroused, it is useful for doing certain things like "

Techniques such as deep breathing, repeating affirmations and visualization have all been used as self-management routines for athletes. These methods help athletes to learn to control their bodies before they start to worry -- which Newton said is counterproductive.

"The more you worry, the more likely something will go wrong," Newton said. "Saying positive statements -- such as 'I'm prepared,' 'I'm strong,' 'I have control' -- helps to trigger the right response in the body rather than the 'uh oh' responses."

Learning how to manage the stress and arousal levels applies to everyone, not just athletes. Newton said some people naturally know how to balance their stress, while others need to learn systematically how to control it.

"If you know how to self-regulate, then you know which buttons to push and how to do it," Newton said.

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CHAMPS Specializations
-Goal-Setting -Balancing Life -Relaxation and Imagery
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-and Attention -Self-Confidence -Communication
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-Skills -Concerns -Academic issues
-Body Image -Performance -Alcohol and Drug -Use
-Concerns -Anxiety
-Team Building -Life

Legacy of Sport Psychology Interns Continues

The pre-doctoral psychology internship program at the Kansas State University Counseling Service has continued to produce a line of sport psychology specialists. Many of these individuals completed their doctoral training through internship placements on this campus and have gone on to continued practice in sport areas. Bob Hamlin is now a faculty member at the Argosy University in Tucson, Arizona and Sport Psychologist for the Olympic snowboard team. Adrienne Leslie-Toogood after a year at the University of Winnipeg has returned to a faculty position at Kansas State where she coordinates the Athletic Specialization for master’s degree in College Student Development. From last year’s interns, Dana Wyner is now completing a post-doctoral Fellowship at Vanderbilt University Counseling Service where she provides a liaison relationship to their athletic department. Megan Brent has continued here at Kansas State University Counseling Service with a post-doctoral fellowship, she has specialized in biofeedback, performance enhancement classes for athletes, and mental health services. This year’s intern group includes Trevor Richardson from Oklahoma State University who has taught several performance classes and consulted with athletes utilizing self-regulation and biofeedback training. Next year, we have already selected an intern, Melissa Todd from University of Missouri-Kansas City. Melissa is a psychologist in training and has a competitive background in track and field distance events.
2004 CHAMPS Program Highlights

Individual Mental Performance Assessments made for Volleyball team during off-season.

Returning athletes for the Women’s Volleyball participated in voluntary assessment program for mental skills relevant to the game of volleyball. The assessments were a series of measurements utilizing biofeedback, a self-report mental skills assessment, locus of control personality inventory, a reaction time computer simulation activity and interpretative interviews. Summary result profiles were made for each athlete and coach along with recommendations of development activity. The following summarizes each assessment step:

Biofeedback stress/relaxation test: This is a 30 minutes protocol that had alternating segments of stress stimulus followed by relaxation strategies. Physiological measures have included GSR, Skin Temperature, and Heart Rate. Feedback provides information concerning reactivity to stressors, capability to invoke relaxation response, and resilience or ability to regroup from stressor stimulus.


Locus of Control Inventory: A simple measure of dependence/autonomy continuum that has implications for level of self-determination and other directedness that may affect approachability and coaching style.

Simulator Reaction Time Activity: A computer based software program that introduces stimuli requiring recognition and response measuring immediacy of time response and correctness of response. This activity has been designed for driver reaction time, but was seen as useful indicator of qualities associated with competitive response-ability.

James E. Robertson, Director of THE PERFORMANCE LAB, and author of the book, The Ultimate Volleyball Performance Mental Routine, conducted a survey of “Top 25 Volleyball Coaches”. He found that 51% were using some type of mental performance techniques, but less than 15% were assessing players in the area of sensory integration such as biofeedback technology. Meanwhile 89% of these coaches expressed an interest in knowing more about sensory integration assessment and training protocols. This is an indication of Kansas State University Volleyball and Coach Suzie Fritz being on the “cutting edge” in this area.

Distance Runners Use Mental Preparation for High Level Performance;

High-level competitive distance runners have participated in multiple training sessions with our Sport Psychology team in the Danskin Performance Enhancement Center. During the year, five distance track athletes utilized from 10 to 25 sessions in the performance lab to develop and fine-tune their self-regulation and mental preparation skills. Two of these athletes competed in the Olympic trials and performed with personal best times during their training. These athletes were able to monitor and self-regulate (demonstrated ability to alter levels of their arousal and relaxation through their own volitional command). Utilizing the biofeedback lab they worked on reduction of muscle tension in areas that created restriction of movement, rhythmic breathing practice through use of respiration patterns, control of “worry” thoughts exposed through GSR measurement and use of positive affirmation training. We have also developed individualized DVDs that incorporated training regimens with personalized instructions. The DVDs enabled the athlete to use mental practice strategies at various times for pre-competition preparation.

Amy Mortimer (pictured below) made an extensive commitment to training in this area. She finished in the top 10 at the 2004 US Olympic trials. She continues to train under the sponsorship of Reebok while attending graduate school at Boston College.

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