An Exploratory Examination of Cognitive Strategies Used by Masters Track and Field Athletes (Research Note)

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Although there is evidence that mental practice and associative strategies are associated with successful athletic performance (Feltz & Landers, 1983; Porter & Foster, 1986; Suinn, 1984, 1985; Ungerleider, 1985), little is known about the extent to which athletes actually use these techniques (Suinn, 1985). Hence, practicing sport psychology consultants have little information available as to the frequency that client athletes actually use such techniques. Similarly, little is known about the correlates of these techniques among athletes.

The present study was designed to help rectify this situation by examining the use of mental practice and associative strategies by a large sample of Masters track and field athletes who participated in a national championship event. Also examined is the association of using these strategies with demographic characteristics, athletic background, other mental training strategies, and motivations for athletic participation.

Method

Athletes who qualified for the National Masters Championships held in Eugene, Oregon, in August 1987 were mailed a survey instrument and asked to voluntarily complete it. They were also informed that all data would be kept confidential and that they would remain anonymous. After 3 weeks a reminder letter was sent to all athletes asking them to complete the instrument if they had not already done so. Of 1,014 instruments mailed, 587 were returned, constituting a response rate of 58%.

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The instrument included items concerning demographic characteristics, physical and mental training strategies, injury experience, mood, attitudes, motivations, and social support. The present study was restricted to measures of cognitive strategies, demographic and athletic background, attitudes, motivations, and performance. Mental practice was assessed with the question, “Do you practice imagery, visualization, or mental rehearsal?” Possible responses were “yes” and “no.” Athletes were also asked, “Do you create images or visualization before, during, or after your event? (check as many as apply).” To operationalize associative as opposed to dissociative strategies for coping with the stress of competition, athletes were asked, “Do you monitor your ‘body signals’ and ‘pain zones’ when competing?” Response categories were “yes” and “no.”

Results

Demographic Characteristics

The majority of participants were male (79.8%) and married (73.3%). Ages ranged from 30 to 88, with a mean of 50.1. Median education was at the bachelor’s level, with 28% having a master’s and 13% having a doctorate. Forty-five states were represented in the sample, with the majority of athletes living in California (30%), Oregon (20%), and Washington (8%).

About half of the athletes had competed in their respective events in high school (52%) and college (51%), and 41% had competed at the postcollege level. Some 27% of the respondents trained at least six times a week. In addition, 24% reported having a coach; about half of them had had a coach for 2 years or less. Average training included 120 miles a month, and the average longest continuous training run was 11.3 miles. The average personal best time for the mile was 5.56 minutes, and the mean for 10 kilometers was 40.4 minutes. Some 49% of the sample ran at least one marathon, with the average time being 3:16. Most respondents reported being injured at some point in their career (86%), 37% had seen a sports medicine physician at least once, and 5% had worked with a sport psychologist. Most of these demographic and athletic characteristics were roughly comparable to those reported for other samples of Masters runners (Okwumabua, Meyers, & Santille, 1987).

Use of Cognitive Strategies

Among the respondents, 83.6% had heard of imagery, visualization, or mental practice, and 90.9% of them reported understanding these processes. Seventy percent of the athletes used mental practice techniques. The modal frequency of mental practice use was seven times a week (37.4%). In this sample, 69.9% reported creating images or visualizations before their event, 25.2% reported visualizing during the event, and 22.3% reported visualizing after their event. A similar percentage of athletes (76%) reported monitoring body signals and pain zones during competition.

Some 35.3% used physical relaxation methods, 13.5% practiced meditation, 4.6% practiced yoga, and 1.8% practiced a martial art. In this group, 45.5% report dreaming about their performance and 86.2% of them report success in their dream competitions.