POSITIVE COPING STRATEGIES AND PERFORMANCE LEVEL AMONG UNIVERSITI SAINS MALAYSIA (USM) ATHLETES

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Abstract

Anxiety is one of the main barriers that impact on performance among athletes and countless researches have been conducted on coping strategy techniques to reduce anxiety among athletes. Coping strategies involve positive or negative techniques. Positive techniques include positive self-talk, physical activity, goal setting, thinking on practice, thought stopping, remembering the worst-case scenario, focus on what you can control, imagery, meditation, simulation, breathing techniques, progressive relaxation, autogenic training and biofeedback, while, negative techniques include drugs, alcohol and smoking. The present study sought to explore potential positive coping techniques used by athletes as influence by demographic variables of athletes. The sample consisted of 78 Universiti Sains Malaysia (USM) athletes. The sample was drawn from athletes who competed in MASUM (Sport between Universities). Results showed that imagery have the highest usage among athletes. National athletes used more postive coping techniques than state, district, and university level athletes. Positive coping techniques of high level performance athletes were more than medium and low level performance athletes. The findings emphasized the importance of positive coping strategies to enhance performance. Sport

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psychologists, sport counselors and coaches should encourage their athletes to use positive coping strategies to improve performance.

Key words: Anxiety, Positive Coping Strategies and Performance

Background

In sport, competition has the tendency to increase the level of anxiety of athletes (Bull, 2000). Sport psychologists have shown priority interest on the importance of anxiety on performance (Hardy & Jones, 1994). According to Raglin and Hanin (2000), anxiety is the main psychology factor has a great influence on performance. Many researches showed that winning in a competition depends on how an athlete can control their anxiety levels (Humara, 2001). The main problem among athletes is they fail to control their anxiety (Cox, Qiu and Liu, 1993; Bull, 2000).

Since anxiety is one of the main barriers to performance among athletes (Cox et al.,1993;Ortiz, 2006), many psychological researches have been conducted on coping strategies to reduce the level of anxiety of athletes (Cratty, 1989; Greenspan and Feltz, 1989; Cox et al., 1993; Taylor, 1996; Humara, 2001; Richards, 2004). When athletes feel anxious in a competitive situation, they try to use personal coping resources to reduce the anxiety (Cox, 2007). Coping has been defined by Lazarus and Folkman (1984: 141) as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taking or exceeding resources of the person".

Coping strategies can be divided into positive and negative techniques. Positive techniques are positive self-talk, physical activity, goal setting, thinking on practice, thought stopping, remember the worst-case scenario, focus on what you can control, imagery, meditation, simulation, breathing techniques,progressive relaxation, autogenic training and biofeedback, while negative techniques are taking drugs, alcohol and smoking.

As a psychological method for improving self-confidence, positive self-talk deals with stressful situations by eliminating pessimistic thinking and worry, and leads to positive and rational

feelings about an athlete's ability (Weinberg and Gould, 1999; Bull, 2000; Anshel, 2003; Cox 2007; Ampofo-Boateng, 2009). Researchers have shown that engaging in physical activity has a healthy impact on blood circulation, relaxation andreduces anxiety and tension (Husak and Hemenway, 1986; Zaichkowsky and Takenaka, 1993; Anshel, 2003). Goal setting is a powerful technique that can be used to improve performance by setting performance, realistic, long term and short term goals (Weinberg and Gould, 1999; Anshel, 2003; Ampofo-Boateng, 2009). In a sport context, when athletes 'think practice', they are reflecting on a relatively relaxed, nonthreatening environment in which their sport skills were performed successfully (Anshel, 2003; Quinn, 2008). Thought stopping aims at changing negative thinking to positive thinking and concentrates on the task (Cox et al., 1993; Montgomery and Morris, 1994; Deford, 1999; Ampofo-Boateng, 2009). The worst-case scenario for an athlete is losing the contest and poor performance (Weinberg and Gould, 1999; Anshel, 2003), but a contest's outcome is not always under the person's control, so by thinking of the worst case scenario, an athlete is placing sport in perspective and enhancing self-confidence (Anshel, 2003; Neil, Mellalieu and Hanton, 2006). By focusing on what can be controlled, worry about uncontrollable factors is reduced and athletes become task oriented, and concentrate on immediate performance demands (Weinberg and Gould, 1999; Anshel, 2003).

Imagery, known as mental rehearsal, mental visualization or mental practice, helps athletes to reduce anxiety and improve performance by activating the muscles (Harris and Robinson, 1986; Cox et al., 1993; Vealey and Walter, 1993; Bull, 2000; Cox, 2007; Ampofo-Boateng, 2009). Vealey and Greanleaf (2001) defined Imagery as "using all the senses to re-create or create an experience in the mind' (p.248). The practice of meditation is associated with a passive attitude and decreased muscle tone, able to reduce anxiety, insomnia and psychosomatic diseases, and enhance energy, intelligence, creativity and health (Hackfort and Schwenkmezger, 1993; Christchurch, 2002;Cox, 2007). While, simulation makes athletes use real competition environment like audience, noise, mass media and referee, which can reduce anxiety at the sport event (Weinberg and Gould, 1999; Gervis, 2000; Bull, 2000). Mastering the technique of deep breathing can make athletes relax relieving tension and enhance self-confidence (Weinberg and Gould, 1999; Cox, 2007).

Progressive Relaxation based on Jacobson's idea that it is impossible to be nervous or tense in any part of the body where the muscles are completely relaxed (Cox, 2007). Relaxation begins with the muscles of the left arm and proceeds to those of the right arm, left and right legs, abdomen, back, and chest and shoulders, concluding with the neck and face muscles (Weinberg and Gould, 1999; Cox, 2007).Autogenic training involves the use of the mind to influence the body to balance the self-regulative systems that control the physiological functioning of the body, including circulation, breathing and heart rate (Ampofo-Boateng, 2009). Biofeedback uses instruments that help people to control responses of the autonomic nervous system and its usefulness for athletes who suffer from excessive anxiety (Cox, 2007). Once athletes become aware of bodily activities through the use of biofeedback, they proceed to learn how to bring their bodies under their own control (Ampofo-Boateng, 2009).

Aims

The aim of this research was to identify the positive coping techniques used by athletes to deal with anxiety by exploring potential positive coping techniques, used by different categories of athletes. Besides that, this research also evaluates the performance of athletes with high, medium and low positive coping techniques usage.

Sample

The sample consisted of 78 athletes, consisting of national athletes (N=17), state athletes (N=20), district athletes (N=23), university athletes (N=18). The sample was drawn from athletes who competed in MASUM (Sport between Universities). The highest level of participation of an athlete becomes his category. For example, athletes who participate at MSSM (Sport between Schools) had participated in sport competitions between states (example Perak and Selangor) before, so his category will be 'state' player even though at MSSM he represents his school. In other words, participants are divided into those categories according to their highest achievement in sport.

Methods

Positive Coping Techniques Questionnaire was used which comprised of positive self-talk, follow by physical activity, goal setting, think on practice, thought stopping, remember the

worst-case scenario, focus on what you can control, imagery, meditation, simulation, breathing techniques, progressive relaxation, autogenic training and biofeedback.

Results

Positive Coping Strategies Items

Coping strategy techniques were evaluated and imagery have the highest mean (x□= 3.74), follow by breathing techniques (x□= 3.57), thought stopping (x = 3.33), think on practice (x□= 3.27), goal setting (x□= 3.12), focus on what you can control (x□= 2.95), remember the worst-case scenario (x□= 2.91), physical activity (x□= 2.77), positive self-talk (x□= 2.75), meditation (x□= 2.51), simulation (x□= 2.42), progressive relaxation (x□= 2.31), autogenic training (x□= 2.01) and biofeedback (x□= 1.11).

Mental imagery can affect performance because when the player use imagery, the brain sends signals via the nervous system to the muscles to control and coordinate their function when doing the required task (Stevens, 2010). Furthermore, mental imagery intended to train athletes' minds and create the neural patterns in the brain to stimulate muscles to do the exact performance (Porter & Foster, 1990).

Categories of Athletes

One way ANOVA showed significant differences among categories of athletes, F (3, 78) = 4.307, p<0.01

TABLE 1. : Coping Techniques based on categories of athletes

Categories	Mean	Value-F	Value-p
National	37.2107	4.307**	0.000
State	33.8953		
District	31.1121		
University	37.9889		

** p< 0.01

Post-Hoc Tukey Test (Table 2) showed that national athletes used more postive coping techniques than state ($p<0.05$), district ($p<0.05$), university ($p<0.05$). Furthermore, positive coping techniques of state athletes were significantly different with national and university level athletes, but has no significant difference with district level athletes. Positive coping techniques of university athletes are less than national and state level athletes but no differ with district athletes.

TABLE 2.: Post Hoc Tukey: Positive Coping TechniquesAmong Categories of Athletes

Categories	National	State	District	University	N
National		* (2.170)	(1.231)	* (3.252)	17
State			×	*(2.321)	20
District				×	23
University			×		18

*p<0.05

Performance

One way ANOVA showed significant differences among categories of performance of athletes, $F(2,78) = 14.2178$, $p<0.01$. (Table 3).

TABLE 3. : Coping Techniques based on Performance

	Level of Performance	Positive Coping Techniques		
		Mean	Value-F	Value-p
Performance	High	19.4211	14.2178**	0.000
	Medium	15.2218		
	Low	13.3561		

** p< 0.01

Post-Hoc Tukey Test (Table 4) showed that positive coping techniques of high level performance athletes are more than medium ($p<0.05$) and low level performance athletes ($p<0.05$). Whereas positive coping techniques of medium level performance athletes are lower than high level performance athletes ($p<0.05$) but higher than low level performance athletes

(p<0.05). Contrary, positive coping techniques of low level performance athletes are less than medium (p<0.05) and high level performance athletes (p<0.05).

TABLE 4.: Pos Hock Tukey: Positive Coping Techniques based on Performance

Level of Performance	High	Medium	Low	N
High		* (2.117)	* (2.2165)	31
Medium			* (2.170)	27
Low				20

*p<0.05

Discussion

Categories of Athletes

The purpose of this study was to identify the usage of positive coping techniques among Malaysian athletes. The result reviewed that national level athletes used the highest positive coping strategies and school level athletes the lowest. A few previous researches supported this result that elite athletes used the highest positive coping techniques,among those research are Orlick and Partington (1988), Gould, Finch andJackson (1993), Smith, Schutz, Smoll and Ptacek (1995), Jones and Hardy (1990), Kioumourtzoglou, Tzetzis, Derri and Milhalopoulou (1997), Weinberg dan Gould (1999), Dale (2000), Park (2000) andJarvis (2002).

Research of Hackfortand Spielberger (1989) and, LeUnes and Nation (2002) showed that elite athletes use positive coping strategies to combat anxiety and to enhance performance. In other words, the maximum usage of coping techniques can differentiate between elite and non elite athletes. This research also has been supported Anshel, Williams and Williams (2000) that elite athletes are popular in using many kind of positive coping techniques.

Performance

The result showed that high performance athletes use the highest number of positive coping techniques and low performance athletes use the lowest number of positive coping techniques. Several researches indicated that using positive coping strategies as above can enhance performance. Among those are Dorsey (1976), Bennett and Hall (1979), Tsukomoto (1979), DeWitt (1980), Daniels and Landers (1981), Goodspeed (1983), Costa, Bonaccorsi and Scrimali (1984), Spigolon and Annalisa (1985), Krenz (1986), Zaichkowsky and Fuchs (1988), Zaichkowsky and Fuchs (1989), Boutcher and Zinsser (1990), Locke and Latham (1990), Kyllo and Landers (1995), Petruzzello, Landers, Hatfield, Kubitz and Salazar(1991), Prapavessis, Grove, McNair and Cable (1992), Blumenstein, Bar-Eli and Tenenbaum (1995), Sahni (1996), Kavussanu, Crews and Gill (1998), Caird, McKenzie and Sleivert (1999) and Cox (2007).Coping strategies play an important role in enhancing performance (Jones, 1995; Hanton and Jones, 1999; Aufenanger, 2005).

Conclusions

As the conclusion of this study, it is found those national or elite athletes use the highest positive coping strategies and school level athletes, the lowest. Furthermore, the performances of those athletes using high positive coping strategies are highest and performances of athletes with low positive coping strategies are the lowest.

Recommendation

The findings emphasize the importance of positive coping strategies to enhance performance. Sport psychologists, sport counselors and coaches should encourage their athletes to use the maximum number of positive coping strategies since it has been proved as the key for success.

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