

Anxiety and Imagery of Green Space among Athletes

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Abstract

Anxiety is multidimensional in nature with both cognitive and somatic components. Since anxiety has been the main barrier on performance among, many psychological researches has been done on coping strategies to reduce the level of anxiety on athletes. Imagery, which not only focuses on visual senses but may include other senses as well, helps athletes to reduce anxiety and improve performance. Visualize green space has a positive impact on mental health. The aim of this research was to evaluate the usage of imagery relaxation (high, medium and low) and their anxiety level. The sample consisted of 844 athletes was drawn from athletes who competed MASUM (Sport between Universities), MSSM (Sport between Schools) and Sukan Olimpik Muda (Young Olympic athletes Sport). The instrument used for the study comprised of Competitive State Anxiety Inventory–2 and Cognitive Coping Anxiety Strategies. The result reviewed that highest user of imagery techniques by visualize green space experienced the lowest level of anxiety and vice versa. Sport psychologists, sport counselors or coaches should use this research to recommend imagery as a coping strategy to reduce anxiety. Imagination of green space like tress and grass had help to reduce anxiety among athletes and enhance their performance in sport.

Keywords: Greenspace, Imagery, Visualize Anxiety, Multidimensional

1. Introduction

In general, anxiety has the capability to threaten a person's well being because it can increase a person's worries and doubt (Landers 1999). In sport, anxiety factors play an important role on deteriorate athletes' performance (Cox, Qiu and Liu 1993; Ranglin and Hanin 2000; Ortiz 2006). Athletes, who effected by high levels of anxiety may fall sick, muscle tension, show aggressive behaviors (Weinberg and Gould 2007), face sleeping problems (Salvis 1994), low self-confidence (Abel and Larkin 1990) and drop out from sport (Cox 2007). Many people realize the effect of environmental factors on anxiety in determining win and lose among athletes (Sanderson 1989).

Anxiety is multidimensional in nature with both cognitive and somatic components (Martens, Vealey and Burton 1990; Jarvis 2002; Cox 2007). Cognitive anxiety is the mental component of anxiety, in which a person experience worries, doubt, unpredictable threatening, negative thoughts, fear of failure, loss of self confidence and concentration (Nideffer 1993; Cox et al. 1993; Weinberg and Gould 2007; Bull 2000; Jarvis 2002). Concentration as a limited source can deteriorate the athletes' performance in sport environment if it has been used for worries (Eysenck and Calvo 1992; Cox et al. 1993; Bull 2000). Somatic anxiety refers to a person's perceived changes in her or his physiological, such as increase heart beat, blood pressure and muscle tension (Bull 2000; Jarvis 2002, Thatcher, Thatcher and Dorling 2004), which can deteriorate athletes performance in sport environment (Weinberg and Gould 2007; Hatzigeorgiadis and Biddle 2001).

Since anxiety has been the main barrier on performance among athletes (Cox et al. 1993; Ortiz 2006), many psychological researches has been done on coping strategies to reduce the level of anxiety on athletes (Cox et al. 1993; Taylor 1996; Humara 2001; Richards 2004). The athletes feel anxious in a competitive situation and try to use personal coping resources to reduce the anxiety (Cox 2007). Coping has been defined by Lazarus and Folkman (1984) 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" (p.141).

Emotion-focused coping is a strategy that involves changing the way a person feels or emotionally reacts to a stressor (Ciccarelli and White 2009). One of the coping strategies which widely use is imagery. Imagery, known as mental rehearsal, mental visualization or mental practice, helps athletes to reduce anxiety and improve performance (Harris and Robinson 1986; Cox et al. 1993; Vealey and Walter 1993; Bull 2000; Cox 2007; Ampofo-Boateng 2009). According to Moran (1993), imagery not only focuses on visual senses but may include other senses as well. Vealey and Greanleaf (2001) defined Imagery as "using all the senses to re-create or create an experience in the mind" (p.248).

According to the stress reduction theory, postulates that natural environments promote recovery from any form of stress or anxiety (Irvine and Warber 2002). This is understood to be a consequence of a psycho-evolutionary process whereby particular types of environments produce certain types of effects (Health Impact Assessment of greenspace: A Guide, 2008). Thus, positive emotional and physiological responses are triggered by the perception of certain types of environments like flowers (Ulrich 1979; Haviland-Jones, Rosario, Wilson and McGuire 2005). Positive mood serves as a buffer against stress and anxiety (Irvine and Warber 2002; Haviland-Jones, Rosario, Wilson and McGuire 2005).

The most common use of relaxation imagery which related to environment, is to imagine a place that resemble greenspace like natural or semi natural habitats, rivers, canals, parks, gardens, outdoor sport facilities and playing fields. Anyone can bring all his or her senses into

the image with, for example, visualizing private gardens, street trees, parks, golf courses, sports fields or mountain view; sounds of running water; the smell of cut grass or flower; the taste of cool mountain water; the breath of fresh air, and so on. Green space has a positive impact on mental health (Tabbush and O'Brien, 2003). Sport related images such as beautiful golf courses next to the ocean, swimming pool and tennis court are scenes and images to develop imagery skills (Cox 2007). Guided relaxation audio and videos can be used to control anxiety. Imagery can promote increased concentration (Jarvis 2002) and performance (Weinberg and Gould 2007) and reduce stress and anxiety (Cox et al. 1993).

2.Aims

The purpose of this study was to correlate a relationship between the level of competitive anxiety and coping strategies, especially relaxation imagery among athletes. The aim of this research was to evaluate the usage of imagery relaxation (high, medium and low) and their anxiety level. In other words the aim of this research was to examine how far Malaysian athletes use imagery strategy to deal with their anxiety problems.

3.Sample

The sample consisted of 844 athletes and it was drawn from athletes who competed sat MASUM (Sport between Universities), MSSM (Sport between Schools) and Sukan Olimpik Muda (Young Olympic athletes Sport).

4.Methods

The instrument used for the study comprised of a 27-item Competitive State Anxiety Inventory-2 (CSAI-2), a 10-item Cognitive Coping Anxiety Strategies (Imagery, Thought Stopping, Focus in the Present, Think Practice, Worst-Case Scenario, Keep Active, Positive Self talk, Simulation, Goal-setting and Meditation). All the respondents completed the questionnaire. Martens et al. (1990) initial psychometric on the CSAI-2 confirmed that the alpha reliability coefficients ranging from .79 to .90.

5. Results

One way ANOVA showed significant differences among categories of imagery relaxation of athletes, $F(2,844) = 17.711$, $p < 0.01$. (Table 1).

Table 1 : The Level of Anxiety based on the Usage of Imagery

Imagery	Sport Competition Anxiety (ANOVA)		
	Mean	F-Value	p-Value
High	22.2273	17.711**	0.000
Medium	23.5918		
Low	26.0845		

** $p<0.01$

Table 1 showed that the level of anxiety of high level imagery user are lowered than medium ($p<0.05$) and low level imagery user ($p<0.05$). Whereas anxiety of medium level imagery user are higher than high level imagery user ($p<0.05$) but lower than low level imagery user ($p<0.05$). Contrary, the anxiety of low level imagery user are more than medium ($p<0.05$) and high level imagery user ($p<0.05$).

6. Discussion

The purpose of this study was to identify the usage of imagery techniques and the level of anxiety among Malaysian athletes. The result reviewed that highest user of imagery techniques experienced the lowest level of anxiety and vice versa. A few previous researches supported this result that usage of imagery techniques determined the level of anxiety, among those researches are Pragman (1998), Miller (2000), Aufenanger (2005) and Cox (2007).

Visualize green space has been found to reduce anxiety. Studies have shown that stressed individuals feel better after exposure to natural scenes (Green space 2011) directly or indirectly through imagery. Visualize gardens and natural spaces are including a linkage between relaxation training and imagery.

7. Conclusion

As the conclusion of this study, it is found that the anxiety level among the highest user of relaxation imagery, are less or low. The findings emphasize the importance of imagery technique to combat anxiety. The use of imagery impact on anxiety and improve athletes' performance in sport. Sport psychologists, sport counselors or coaches should use this research to recommend the usage of imagery, which relate to anxiety, and also promote this strategy to less successful athletes, to enhance their performance. Since this research has identified the usage of imagery which contribute anxiety, it can be used to predict the level of anxiety.

Better performance in sport and low level of anxiety may stem from usage of imagery that visualize greenspace, though more research is needed to confirm this.

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