

The Effect of Mental Imagery upon the Reduction of Athletes` Anxiety during Sport Performance

S.H Mousavi (M.Sc)

Department Of Physical Education
Zanjan Branch, Islamic Azad University, Zanjan-Iran

Abolfazl Meshkini (Ph.D)

Tarbiat Modares University-Iran

Abstract

The present research tries to consider the mental imagery effect upon the reduction of athletes` anxiety during sport performance using documentary analysis method. We applied experimental method with pre-post tests and control group. The measuring tool was Kettle anxiety questionnaire (2009). Our statistical population was all tennis players in Zanjan (2010) of whom 25 were chosen as control and 25 as experimental group through Cohen sampling table. We applied descriptive and independent t-student, here. Finally, having considered the background and findings related to our topic, our results showed that the mental imagery shall considerably reduce the athletes` anxiety and improve their performance, specifically, if other psychological strategies like self-talk, relaxation and goal-setting are included and the related task is highly familiar to the individuals.

Key words: Mental Imagery, Anxiety

Introduction

Mental imagery and self-talk strategies are implemented by athletes in order to regulate arousal, reduce maladaptive behaviors, reconstruct negative thoughts, and to increase one's concentration and focus. DeFrancesco and Burke (1997) reported that imagery techniques were found to be the most common strategies employed by both female and male professional tennis players. Lejuene, Decker, and Sanchez (1994) studied the training styles of 40 novice table tennis players and found that "imagining oneself successfully completing a sports skill in the absence of the actual movement or activity increases the probability of improving one's performance" (p. 627). In addition, McKenzie and Howe (1997) reported that engaging in a 15-week imagery training program improved accuracy scores among dart throwers when compared to participants not exposed to any imagery training. Peluso (2000) reported that participants who engaged in relevant imagery practice increased performance on both a mirror tracing and jack catching task when compared to participants in non-relevant, relaxation, and control conditions. It is widely accepted that that imagery is a powerful and important psychological tool in the enhancement of athletic performance. Within an appropriate training

program imagery skills can increase self awareness, facilitate skill acquisition and maintenance, build self confidence, control emotions relieve pain, regulate arousal and enhance preparation. The use of imagery is most effective for tasks that have a high “cognitive” component and advanced athletes benefit more from it than beginners also it is seen to be most effective if it precedes physical practice.

There is a wide range of imagery abilities between athletes even at elite level and its implementation, so for this reason the starting point of this intervention must be training in effective imagery techniques. The more imagery is done the better the individual will become, it is important to gauge what level of imaging skills the individual has at the outset. This may include issues of lack of concentration, embarrassment or even an inability to translate a physical skill, at which they are highly proficient, into effective imagery.

Athletes who image the arousal stress and anxiety that may accompany performance and the use of imagery which includes being in control in difficult situations or individuals that image themselves being mentally tough have higher levels of self confidence. As self confidence is recognized by most athletes and coaches as an important cognitive determinant of athletic performance the use of this type of imagery is to be encouraged. However the use of this imagery can be counterproductive for individuals who do not deal with cognitive state anxiety well as they will be unable to feel positive and image a believable positive outcome.

For many years the use of cognitive imagery, athletes imaging themselves performing skills, just before competition was seen also as a way to increase self confidence, however later studies refuted this. There was no correlation found between cognitive imagery and self confidence and its use is purely one of preparing the motor system for action. Previous experience is the strongest predictor cognitive state anxiety, competitors who have previously succeeded report lower levels than those that have not. The ability to utilize experienced images rather than predictive images gives a much stronger effect.

Thus, the present research tries to consider the mental imagery effect upon the reduction of athletes` anxiety during sport performance.

Method and Material

We applied experimental method with pre-post tests and control group. The measuring tool was Kettle 40-item anxiety questionnaire (2009). Of course, its content validity instrument was approved by experts. Cronbach Alpha was used to estimate the reliability alpha obtained (0.78). Our statistical population was all tennis players in Zanjan (2010) of whom 25 were chosen as control and 25 as experimental group through Cohen sampling table. We applied descriptive and independent t-student, here.

Findings

Table 1: Anxiety variable in both control and experimental groups

Group	Test	Mean	S.D	Minimum score	Maximum score
Experimental	Pre-test	83.2	7.6	45	112
	tsoP-test	61.7	6.3	40	93
Control	Pre-test	85.1	8.4	48	114
	tsoP-test	83.9	7.8	46	113

Table 2: Independent t-test for control and experimental groups

elbairaV	tseT	puorG	oN	\bar{x}	s	t	d.f	p
yteixnA	Pre-test	temirepxEla	25	83.2	7.6	1.3	48	0.4
		lortnoC	25	85.1	8.4			
	Post-test	latnamirepxE	25	61.7	6.3	9.7	48	0.00
		lortnoC	25	83.9	7.8			

lbaT 3 : Dependent t-test for experimental group

puorG	Test	\bar{x}	s	t	d.f	p
latemirepxE	Pre-test	83.2	7.6	8.9	24	0.00
	Post-test	61.7	7.3			

Conclusion

Amongst top performers effective imagery is seen as a highly desirable skill and rightly or wrongly the factor which makes the difference amongst the elite where technical ability is similar. For this reason emphasis should be made on adaptive and flexible strategies that are used regularly and in a consistent manner, the athlete should have image strategies for pre performance, warm up and during the event. There is much debate as to how effective imagery is at directly influencing performance but when combined with physical practice, imagery has been shown to facilitate athletic performance .If this is due to issues such as therapist effects or demand characteristics or even just publicity within an applied setting it is a valuable tool for the elite performer.

References

- 1- Murphy, S. M. (1990). Models of imagery in sport psychology: A review. *Journal of Mental imagery*,14,153-172
- 2- MN. CALLOW AND L. HARDY. Types of Imagery Associated with Sport Confidence inNetball Players of Varying Skill Levels. *Journal of sport psychology*,13,2001.1-2
- 3- Eugenio A. Peluso, Michael J. Ross, Jeffrey D. Gfeller and Donna J. Lavoie. A COMPARISON OF MENTAL STRATEGIES DURINGATHLETIC SKILLS PERFORMANCE. *Journal of Sports Science and Medicine* (2005) **4**, 543-549
- 4- Melissa Bochiaro. THE USE OF IMAGERY BY COLLEGIATE ATHLETES DURING THEIROFF-SEASON. Oxford, Ohio(2004).1-7
- 5- CHRIS CARR, Ph.D., HSPP. Guide to Improving Mental Concentration and Performance. St. Vincent Hospital.6-8
- 6- Richard Ramsey¹, Jennifer Cumming, & Martin Gareth Edwards. Exploring a Modified Conceptualization of Imagery Direction and Golf Putting Performance. 2008 West Virginia University. IJSEP, 2008, 6, 207-223
- 7- Rachel J. Simeone. Effects of Mental Imagery on Athletic Performance: A Literature Review. *Journal of Psychological Inquiry* Volume 8, Number 1-2, Spring-Fall 2003.PP21-23
- 8- *Miguel Humara, M.A.* The Relationship Between Anxiety and Performance: A Cognitive-Behavioral Perspective.*THE ONLINE JOURNAL OF SPORT PSYCHOLOGY*.RETIIEVED ABAN 1388.
- 9- Murphy, S. M., & Jowdy, D. P. (1992). In T. S. Horn (Ed.), *Advances in sport psychology*.
- 10- Hall, C., Buckholz, E. & Fishburne, G.J. (1992), "Imagery and the acquisition of motor skills". *Canadian Journal of Sport Science* 7:19-27.