

THE EFFECT OF VISUAL - MOTOR BEHAVIOUR REHEARSAL TRAINING ON THE SELF- EFFICACY OF EMERGING ADULT ATHLETES.

**Bhawna Chauhan, Research Scholar, Department of Psychology,
Himachal Pradesh University.**

**Dr. Sunil Kumar, Associate Professor, Department of Psychology,
Himachal Pradesh University.**

**Dr. Aunradha Solanky, Jr Scientific Officer, Sports Authority of India,
New Delhi.**

ABSTRACT

The current study was designed to examine the effect of Visual-Motor Behaviour Rehearsal Training on the Self-Efficacy among emerging adult athletes using pre-test post - test treatment design. Sixty male and female age range of 18-24 years who gave their consent to participate were selected randomly 30 each in the in experimental and control group. Twelve weeks Visual-Motor Behaviour Rehearsal Training Program me consist of 3 sessions per week was given to the participants of experimental group while the participants of control group were interacted simultaneously. Finally, the observations of the participants were subjected to analysis of covariance after satisfying its conditions to apply displayed the significant difference between the groups on their self-efficacy after the intervention and participants of the experimental group outperform the participants of control group on their self-efficacy after the intervention.

KEYWORDS

Self-Efficacy, Visual- Motor Behaviour Rehearsal Training and Athletes.

BACKGROUND

In Recent times, Athletes have been going further from the physical aspect to the mental aspect of competing and there is growing realization that, peak performance in sports can only be achieved through taking help from psychological techniques which in turn enhance the athlete's psychological strength and ultimately the performance. The need of psychological skill training for the sports person is a predictable one as it enables the sports participants to cope up the stressful situations and to display their potentials during the competitive situations. In sports, the competitive demands increase progressively. Consequently, strengthen the psychological constructs and maintain the optimal level of arousal that are needed for better performance in sports is an essential to the sports persons as it plays

significantly in challenging the competitions positively and concentrating on practices before completion.

Besides, learning the importance of psychological skills help athletes to control their mental status and control themselves under various circumstances. Studies in sports psychology submit that the best performers tend to have higher levels of self-confidence, higher task-oriented focus, control over their anxiety level, more determination and commitment (Woodman and Lew, 2003). Self-efficacy is placed as it influences the power decisions, the amount of energy invested in the attempt, the degree of perseverance in the expression, obstacles and failures or hardiness to diversity. Self- efficacy also affect motivation in terms of the amount of effort a performer put in and how long they persist at task (Bandura, 1977). Infect, an individual with positive self-efficacy hopes to succeed and will persist in an action until the task is concluded. Individual with low perception of self- efficacy anticipates failure and is less inclined to endeavor or persist in demanding activities(Kear, 2000). Beliefs in one's capabilities to organize and execute the courses of action, grounded in four explicit foundations i.e., performance accomplishment, vicarious experience, verbal persuasions and perceptions of emotional arousal (Bandura, 1977;1986).Which is derived from four sources of mastery experiences *i.e.*, past performances, vicarious experiences, verbal persuasion, and physiological states (Bandura, 1986; 1997). Therefore, to excel in any sports, mental training encompassing various techniques to help individuals alter their own stresses reaction to environmental events. Expert athletes and collegiate athletes have been known to use imagery and visualization techniques as an advantage during training and competition (DeWitt, 1980).Visual-motor behaviour rehearsal includes relaxation training, visualization or mental imagery and performance of the skill in a simulated stressful environment.

In essence, these behavior therapies emphasize retraining of emotional aspects of situations. Lohar and Scogin (1998) examined the effect of self administered Visual-motor behaviour rehearsal training on athletic performance of male and female collegiate athletes representing seven sports. Results indicated that Visual-motor behaviour rehearsal group exhibited significantly greater increases in sports performance than did the delayed-training control group. A significant decrease in sports competition anxiety also observed for Visual- motor behaviour rehearsal Group. These components provide the groundwork of psychological skill

training program. Visual – motor behaviour rehearsal, a psychological skill package was developed by (Suinn,1972;1976) which include ,relaxation training, visualization or mental imagery and performance of the skill in a simulated stressful environment. These components provide the foundation of most psychological skill training programs used in sports as psychology applications.

This is one of such psychological technique which involves athletes for relaxation training, visualization or mental imagery and performance of skill in a simulated stressful environment. Alrahamneh and Elbokai (2011) studied the outcome of Visual-motor behaviour rehearsal on the athletes and observed the significant improvement in self-concept and low anxiety from pre-to post assessment of the participants of experimental group. Based on the above present study was designed to see the effect of Visual – motor behaviour rehearsal training on self-efficacy of the emerging adult athletes with the following objectives:

OBJECTIVES

To study the difference between the experimental group and control group on the Self-efficacy scores of the participants on their post- test, after the intervention.

HYPOTHESIS

There would be a significant difference between the experimental group and control group on the Self -efficacy of the participants on their post test after the intervention.

METHODOLOGY

Design:

In the present study, pre-test post -test treatment design was used to study the effect of Visual-motor behaviour rehearsal training on the Self- efficacy of the emerging adult athletes of experimental and control group (See 1.1)

TABLE -1.1

Design to study the effect of Visual -Motor Behaviour Rehearsal Training on Self-Efficacy among athletes

Group	Pre -Test	Post –Test
Experimental Group	30	30
Control Group	30	30

The present study involves Sixty participants in total, studying in College/University having age range of 18-24 years with judo experience of more than 5 years and have received at least 2 medals at the state level or national level competitions besides, who gave their consent to participate in the study were taken and selected randomly 30 each in the experimental and control group.

Variables of the Study: The present study involves the following variables:

Independent Variables- Visual- Motor Behaviour Rehearsal Training

Dependent Variable- Self-Efficacy

Tools of the Study

Generalized Self-Efficacy Scale developed by Schwarzer and Jerusalem (1995) was used to study the self-efficacy of the participants. Having established reliability (Cronbach's alphas ranged from .76 to .90 and validity (Criterion-related) and reflects the strength of an individual's generalized self-efficacy belief. Twelve weeks Visual-motor behaviour rehearsal training comprised of three sessions per week.

RESULT AND DISCUSSION

After the intervention the observed scores of the participants were analyzed using analysis of covariance besides satisfying its assumptions to apply so as to meet the objective of the study. To satisfy the assumption of control on the independent variable the F value (1.74) came out non-significant showed no significant difference between experimental and control group on their pre-test scores i.e., the independent variables and covariate are not different across the group and satisfied the assumption to apply Analysis of covariance.

Table 2.1

The F Value Table on the Self - Efficacy of Participants of the Experimental Group and Control Group on their Pre-Test Scores

Source	Sum of Squares	Df	Mean Square	F Value
Groups (Pre-Test Scores)	50.417	1	50.417	1.74
Error	1681.767	58	28.996	
Total	52949.000	60		

Secondly, to test the assumption of homogeneity of regression, the result of analysis showed the F value ($F = 1.31$) non-significant (See table 2.2) indicated no significant difference between the subjects effects on group time pre-test and thus satisfied the assumption of homogeneity of regression to qualify to apply Analysis of Covariance to the post-test scores of the participants.

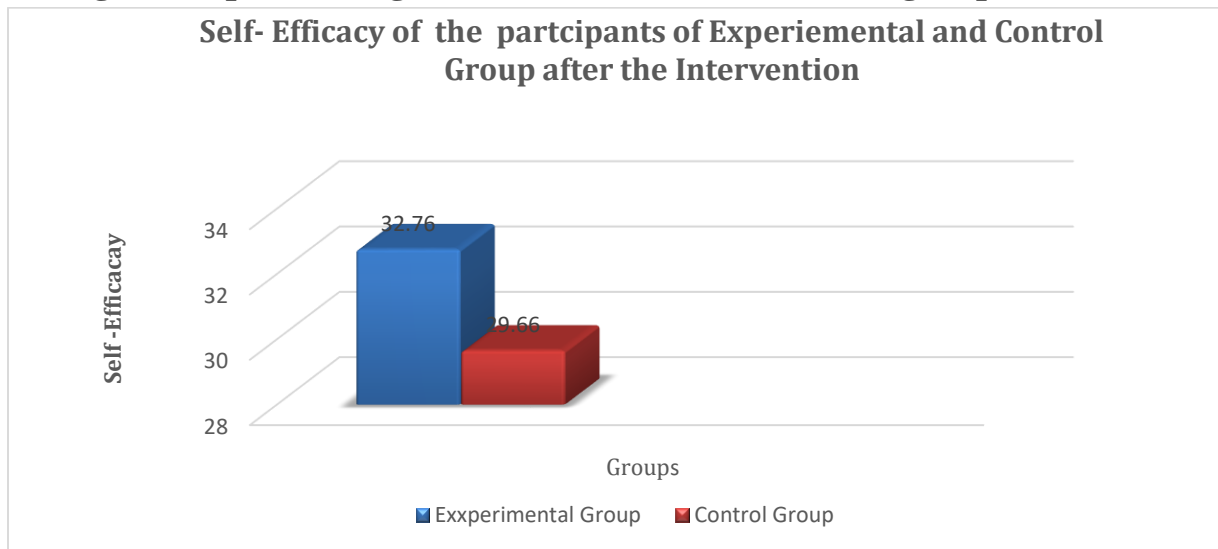
Table 2.2
The 'F' Value Table of the Self- Efficacy of Participants of the Experimental and Control Group to test the Homogeneity of Regression

Source	Sum of Squares	Df	Mean Square	F Value
Groups (Pre-Test Scores)	.904	1	.904	1.31
Error	39.003	56	.696	
Total	60195.000	60		

After satisfying its assumptions, analysis of covariance was applied on the post scores of the participant of experimental and control group and showed the significant difference ($F = 49.41^{**}$) at .01level of significance on their post-test scores of self-efficacy indicating the significant difference between the experimental and control group on their Self-efficacy scores (see table 2.3). The mean score ($M = 32.76$) of the experimental group turn out higher than the mean score of the control group ($M = 29.66$) revealed the significant improvement on the self-efficacy scores of the participants of experimental group after the intervention than the control group (see table 2.4).

Table 2.3
The F Value Table Showing the Difference Between the Experimental and Control Group on the Self- Efficacy of Participants in the Post-Test.

Source	Sum of Squares	Df	Mean Square	F Value
Groups (Post-Test Scores)	343.355	1	343.355	49.41**
Error	39.908	57	.700	
Total	60195.000	60		

Fig.1: Graph showing the treatment outcomes of the groups after the Intervention**Table 2.4****Mean Values of the participants of the Experimental and Control Group on their Self-Efficacy after Intervention**

Variable	Mean Value (Post-Test)	
	Experimental Group	Control Group
Self-Efficacy	32.76	29.66

Thus, the result of the present study showed the effect of intervention on the self-efficacy of the participant's i.e. significant improvement in the self-efficacy of the participants of experimental group than the control group. The Result of the present study do find support from the earlier research directly and indirectly.

Buck et.al., (2016) conducted study on 20 participants to see the effectiveness of mental imagery supplemented with video-modeling on Self-efficacy and front squat strength .Participants of the experimental group exhibited improvement in their self-efficacy following the intervention, and displayed more improvement than those in the control group. Further, Kim et.al., (2012) reviewed the impact of guided relaxation and imagery (GRI) on improvement in falls self-efficacy in older adults who report having a fear of falling. Result suggests GRI was more effective at increasing falls self-efficacy and self-reported leisure time exercise and reducing times on a simple mobility test than was guided relaxation with music of choice. GRI is an effective, simple, low-cost tool for older adults to improve falls self-

efficacy and leisure time exercise behaviors. Alrahamneh and Elbokai (2011) studied multi-week experimental designed to analyze the impact of Visual- Motor Behaviour Rehearsal on 63 athletes with special needs. Post – evaluations data for experimental group indicated a significant improvement in their self-concept and low anxiety from pre to post assessments. Karimian et.al.,(2010) analyzed the efficacy of relaxation training and imagery training on self-efficacy, competitive anxiety and performance of adolescent skate competitors in three groups. Group - I participants given relaxation training and Group - II participants given mental imagery training and Group - III not given any training. Study concluded Self-efficacy and performance in Group - II (mental imagery training) higher than Group-I (relaxation training) and in Group –I it was higher than Group - III (control group). While in case of competitive anxiety it is lower in Group-I than Group – II and for Group - II it is lower than Group - III. Feltz and Lander (1983) reported increased performance when athletes implemented imagery practice on cognitive tasks (i.e. analyzing an opponent’s offensive scheme to implements one’s own defensive strategy in tackling an opponent) as opposed to purely motor tasks.

Cumming et.al., (2005) revealed the impacts of imagery directions on Self- efficacy and performance in dart throwing task of 95 novice dart throwers. Short et. al., (2002) showed that both cognitive specifically and Motivational general mastery can influence Self-efficacy and performance. According to Maddux (1995) people can generate efficacy beliefs by imagining themselves or others behaving successfully or unsuccessfully in anticipated performance situation. Cognitive self-modeling or cognitive self-enactment as a form of modeling influences imaging one’s self winning against an opponent has been shown to raise efficacy judgments and endurance in the performance (Bandura, 1997). According to Maddux and Lewis (1995), when situation present complex challenges, people often generate imagery congruent with their perception of low self-efficacy. Researchers showed that maladaptive, distorted imagery was an important factor in depression and anxiety. Thus, in addition, to construct and sustain confidence, modifying images already used by athletes may be the key to regaining self – efficacy.

On the basis of above discussion, the result of the present study confirmed the effectiveness of Visual -motor behaviour rehearsal training on the self-efficacy of the participants and the hypothesis in this regard stand confirmed.

CONCLUSION

Self-efficacy permit individuals to conquer adverse experiences without any eternal harm to their sense of self and amplified feelings of self-efficacy which in turn has a positive effect on the subsequent performance of athletes. Visual-motor behaviour rehearsal training program and has a positive impact on fight back self –efficacy. In conclusion, the results of the present investigation endow with strong support for the effectiveness of Visual-motor behaviour rehearsal. Based on the results it was concluded that the salient features of visualizing the competition scenes and relaxation scenes presented to the experiment group were the major foundation for the participants of experimental group for dominating the control group on their psychological variable which has led to the desired results. Sports psychologist's physical educationists and coaches must identify the root cause of psychological changes to conquer the field. Therefore, to build up the psychological constructs and sustain the optimal level of arousal which are desirable to put on show better performance in sports is an essential as it plays significantly in challenging the competitions positively and concentrating on practices before completion.

REFERENCES

- Alrahamneh, A. and Elbokai, H.T. (2011).The effectiveness of Visuo-Motor Behavioural Rehearsal (VMBR) to reduce the anxiety and to improve self-concept for athletes with special needs, **International Journal of psychological studies**, 3(2).
- Bandura, A. (1997). Self-efficacy: the exercise of control. **New York: Freeman.**
- Bandura,A.(1977).Self Efficacy towards a unifying theory of Behavioral Change, *Psychological Review*,84:191-215,**Social Cognitive Theory of personality**. In L. Peruin and John (ed),*Handbook of personality*, 2nd 15-196.
- Bandhura, A. (1999). **Social Cognitive theory of personality** .In L.Peruin and John (ed),*Handbook of personality*, 2, 154-196.
- Buck, D. Hutckinson, J., Winter, C., and Thompson, B.(2016).The effect of Mental imagery with video-modeling on self-efficacy and Maximal front Squat Ability, **Journal of Sports Basel**, 4 (2).

- Cumming,J., Nordin,S., Horton.R. and Reynolds,S.(2005).Examining the direction of imagery and self-talk on dart-throwing performance and self-efficacy,**The Sports Psychologist,20,257-274.**
- Decamps,G.(2012).Sports psychology and performance (1st Ed).**Brussels: groupe de boeck s.a, 380.**
- De Witt,D.(1980).Cognitive and biofeedback training for stress reduction with university athletes. **Journal of Sports Psychology,2 (4),288-294.**
- Felt, Z. D. and Landers, D.(1983).The effect of mental practice on motor skill learning and performance :A meta – analysis. **Journal of sports psychology,5,25-57.**
- Hall, E. G. and Erffmerger, E.S. (1983). The effect of vi-quo-motor behavioural rehearsal with videotaped modelling on free throw accuracy of inter collegiate female basketball players. **Journal of sports psychology, 343-346.**
- Karimian, M., Kashfolgh, F., Dadashi,S. M. and Chharbaghi, Z. (2010).The effect of Relaxation and Mental Imagery on Self –efficacy, Competitive Anxiety and Sportive Performance. **British Journal of Sports Medicine, 44 (1).**
- Kear,M.(2000).Concept Analysis of Self-efficacy, Graduate Research in Nursing, available at **<http://graduateresearch.com/Kear.http>.**
- Kim, B., Newton. R., Sachs, M., Glutting, J. and Glanz. K. (2012).Effect of Guided Relaxation and Imagery on Falls self-efficacy: A Randomized Controlled Trails. **Journal of the American Geriatric Society, 60 (6), 1109-1114.**
- Lohar, A., and Scogin, F. (1998). Effect of self administered Visuo-Motor Behavioural Rehearsal on sports performance of collegiate Athletes. **Journal of sports behaviour, 21 (2) .**
- Maddux, J.E. (1995).Self-efficacy theory: An introduction: Self-efficacy, adaption, and adjustment: theory, research, application, In J.E. Maddux (ed), (3-33).**New-York: Plenum Press.**
- Maddux, J. E., and Lewis, J.(1995).Self-efficacy and adjustment : basic principles and issues. Self-efficacy, adaptation and adjustment : theory, research, and application, In J.E .Maddux (ed), (37-68).**New-York :Plenum Press.**
- Schwarzer,R., and Jerusalem (1995).Generalized Self-efficacy Scale. In J, Wesnmam, S. Wright and M. Johnston, Measures in Health psychology: Ausersportfolio. **Causal and control beliefs, 35-36.**

- Short, S . E., Bruggeman, J. M., Engel, S. G ., Marback, T .L. J., Willadsen, A.(2002).The effect of imagery function and imagery direction on self-efficacy and performance on a golf-putting task. **The Sport Psychologist,16,48-67.**
- Suinn, R. (1984b).Visual motor behavior rehearsal; The basic techniques. **Scandinavian, Journal of Behavior Therapy, 13, (131-142).**
- Suinn,R.(1972). Behaviour Rehearsal training for ski racers. **Behaviour therapy,3,(519).**
[http://dx.doi.org/10.1016/50005-7894\(72\)80191-6](http://dx.doi.org/10.1016/50005-7894(72)80191-6).
- Suinn,R.(1976).Visual motor Behavioural Rehearsal for adaptive Behavioural Rehearsal for adaptive behaviour. InT.Krumboltz and C.Thoreson (Eds), *Counselling Methods*, 360-366.**New York Holt.**
- Woodman,T. and Law, H. (2003). The Relative impact of cognitive anxiety and self – confidence upon sports performance. **Journal of sports sciences 21(6); 443-457.**

