



## EFFECT OF SPECIFIC RESISTANCE TRAINING PACKAGES ON SELECTED PSYCHOLOGICAL VARIABLES AMONG HOCKEY PLAYERS

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### **Abstract:**

*The purpose of the study was to investigate the effect of specific resistance training packages on selected psychological variables among hockey players. To achieve the purpose of the present study, thirty hockey players from Coimbatore were chosen as the subjects and their age shall ranged from 16 to 18 years. The subjects were divided into two equal groups of fifteen subjects each. For the present study pre test – post test randomized group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen hockey players each and named as Group 'A' and Group 'B'. Group 'A' underwent specific resistance training and Group 'B' underwent no training. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co -Variance (ANCOVA) technique to find out the effect of specific resistance training on selected psychological variables among hockey players. The level of significance was set at 0.05. The findings of the present study have strongly indicates that specific resistance training of twelve weeks have significant effect on selected psychological variables i.e., Anxiety and Aggression of hockey players. Hence the hypothesis earlier set that specific resistance training programme would have been significant effect on selected psychological variables in light of the same the hypothesis was accepted.*

**Keywords:** Hockey, Psychology, Specific Resistance Training.

### **INTRODUCTION**

Hockey is a game with different type of athletic movements and as a result it requires different types of training for elite performance. Hockey players must meet the very physically challenging demands perhaps it is a multi-sprint sport. Hockey is being played on a ground with the same number of players for a similar duration and physiologically it is close to soccer. In hockey power is required for acceleration, speed and quick changes in direction. Strength allows the players to shoot more powerfully with accuracy and pass over a greater range of distances. The distinctive demands of hockey are strength endurance and explosive power.

Hockey player's requisite a combination of technical, tactical and physical ability in order to succeed. It is odd; therefore, the hockey investigation has tended to concentration on techniques and tactics, with tiny emphasis on how to develop the endurance and speed needed to become a better player. The purpose of the training programme is to produce metabolic, physiological and psychological adaptation that allows the sportsperson to achieve top level performance (Hardayalsingh, 1983).

### **RESISTANCE TRAINING**

Resistance training is a form of exercise for the development of strength and size of skeletal muscles. Resistance training, also known as weight training or strength training, is for everyone. According to the

American Sports Medicine Institute (ASMI) resistance training is a "specialized method of conditioning designed to increase muscle strength, muscle endurance, and muscle power". Resistance training can be performed in a variety of ways; with resistance machines, free-weights (dumbbells and barbells), rubber tubing, or own body weight, as in doing push-ups, squats or abdominal crunches.

### **ANXIETY**

By analyzing an athlete's responses to a series of statements about how she/he feels in a competitive situation it is possible to determine their level of anxiety. A test that provides such functionality is the Sport Competition Anxiety Test (SCAT) (Martens et al. 1990). Anxiety is distinguishable from other unpleasant affective states (emotional) such as anger, grief, or sorrow by its unique combination of phenomenological and physiological qualities. This gives anxiety, a "character of un pleasure" which although difficult to describe, seems to possess a particular note of its own. Freud (1936) emphasized that apart from generalization, in day to day human life and in sports and games, anxiety plays very crucial role as a determinant factor. Anxiety is a psychological state resulting from our awareness of increases in arousal. It is usually considered a negative emotional state, often experienced as fear or apprehension because the situation is perceived

as threatening in some way.

### AGGRESSION

The use of the word "aggression" is somewhat confusing. The term aggression is employed to describe angry violent behavior with intent to hurt a person or cause damage to property. "Aggressive" behavior is also used to depict a strong and somewhat adventurous effort. Thus an aggressive sales person or athlete, for example, may be perceived as obnoxious or violent by some and motivated and hardworking by others. Aggression is any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment. Aggression is generally defined as a behavioural act that results in hurting or harming others. Berkowitz (1993), defined aggression as a behaviour directed toward the goal of harming or injuring another living being, where the other person will be motivated to avoid the harm.

### OBJECTIVE OF THE STUDY

The purpose of the study was to investigate the effect of specific resistance training packages on selected psychological variables among hockey players. It was hypothesized that there would have been a significant influence of specific resistance training packages on selected psychological variables among hockey players.

### METHODOLOGY

The purpose of the study was to investigate the effect of specific resistance training packages on selected psychological variables among hockey players. To achieve the purpose of the present study, thirty hockey players from Coimbatore, were chosen as the subjects and their age shall ranged from 16 to 18 years. The subjects were divided into two equal groups of fifteen subjects each. The investigator selected the following variables for the present investigation. Sport Competition Anxiety was measured by Sport Competition Anxiety Test (SCAT) (Martens et al. 1990). And aggression was measured by Anand kumar and P.S Shukla (Questionnaire). For the present study pre test – post test randomized group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen hockey players each and named as Group 'A' and Group 'B'. Group 'A' underwent specific resistance training and Group 'B' underwent no training. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co -Variance (ANCOVA) technique to find out the effect of specific resistance training on selected psychological variables among hockey players. The level of significance was set at 0.05.

### RESULTS AND DISCUSSION

The detailed procedure of analysis of data and interpretation were given below,

**TABLE-I**  
**SUMMARY OF DESCRIPTIVE STATISTICS ON SELECTED PSYCHOLOGICAL VARIABLES AMONG HOCKEY PLAYERS**

Sl.No	Variables	VMSRTG					CG				
		Pre	SD (±)	Post	SD (±)	AM	Pre	SD (±)	Post	SD (±)	AM
1	Anxiety	22.84	14.19	20.92	2.93	23.63	22.80	1.98	22.03	2.90	23.71
2	Aggression	16.25	0.53	12.10	0.43	12.09	16.23	0.77	16.20	1.42	16.20

SRTG = Specific Resistance Training Group

CG = Control Group

The table I shows that the pre and post test means and standard deviation of two groups on selected psychological variables of hockey players.

**TABLE - II**  
**ANALYSIS OF VARIANCE OF PRE TEST SCORES ON SELECTED**  
**PSYCHOLOGICAL VARIABLES AMONG HOCKEY PLAYERS**

Sl. No	Variables	Source of Variance	Sum of Squares	df	Mean Squares	F-Value
1	Anxiety	BG	0.02	1	0.02	0.01
		WG	1013.42	58	17.47	
2	Aggression	BG	11.27	1	11.27	0.58
		WG	1125.67	58	19.41	

\* P < 0.05 Table F, df (1,28) (0.05) = 4.20

In table II, the results of analysis of variance of pre test scores on anxiety (0.01) and aggression (0.58) were lesser than the table value of 4.20 indicating that it

was not significant for the degrees of freedom (1,28) at 0.05 level of confidence indicating that the random sampling was successful.

**TABLE-III**  
**ANALYSIS OF VARIANCE OF POST TEST SCORES ON SELECTED PSYCHOLOGICAL VARIABLES**  
**AMONG HOCKEY PLAYERS**

Sl. No	Variables	Source of Variance	Sum of Squares	df	Mean Squares	F-Value
1	Anxiety	BG	43.46	1	43.46	4.81*
		WG	524.30	58	9.04	
2	Aggression	BG	194.40	1	194.40	12.07*
		WG	934.53	58	16.11	

\* P < 0.05 Table F, df (1,28) (0.05) = 4.20

In table III, the results of analysis of variance of pre test scores on anxiety (4.81) and aggression (12.07) were lesser than the table value of 4.20 indicating that it

was not significant for the degrees of freedom (1,28) at 0.05 level of confidence indicating that the random sampling was successful.

**TABLE-IV**  
**ANALYSIS OF COVARIANCE OF ADJUSTED POST TEST SCORES ON SELECTED PSYCHOLOGICAL**  
**VARIABLES AMONG HOCKEY PLAYERS**

Sl. No	Variables	Source of Variance	Sum of Squares	df	Mean Squares	F-Value
1	Anxiety	BG	44.30	1	44.30	8.90*
		WG	283.78	57	4.98	
2	Aggression	BG	223.92	1	223.92	15.67*
		WG	814.53	57	14.29	

\* P < 0.05 Table F, df (1,27) (0.05) = 4.21

In table IV, the results of analysis of covariance of adjusted post test scores on anxiety (8.90) and aggression (15.67) were greater than the table value of 4.21 indicating that it was significant for the degrees of freedom (1,27) at 0.05 level of confidence.

In case of psychological variables i.e. anxiety and aggression the results between pre and post (12 weeks) test has been found significantly higher in experimental group in comparison to control group. This is possible because specific resistance training is steady physical activity using large muscle groups. This type of exercise strengthens the anxiety and aggression. Specific resistance training has the most benefits for mind and body. Regular use of specific resistance training can help decrease your mental ability which directly contributes to enhancement in their anxiety and aggression due to regular specific resistance training which may also bring sudden spurt in psychological variables in hockey players.

The findings of the present study have strongly

indicates that specific resistance training of twelve weeks have significant effect on selected psychological variables i.e., anxiety and aggression among hockey players. Hence the hypothesis earlier set that specific resistance training would have been significant effect on selected psychological variables in light of the same the hypothesis was accepted.

#### CONCLUSIONS

In the light of the study undertaken with certain limitations imposed by the experimental conditions, result of the study reveals that there was a significant improvement in the experimental groups on selected variables when compared to the control group after the completion of twelve weeks of specific resistance training.

#### REFERENCES

- Baechle, T.R. and Earle, R.W. (2000). *Essentials of Strength Training and*

- Conditioning*, 2nd Edition, Champaign, IL: *Human Kinetics*.
2. Baechle, Thomas R. and Groves, Barney R., (1992). *Weight Training Step ton Success*, Champaign Illinois: *Human Kinetics Publishers Inc*.
  3. Barrow, H.M., Mc. Gee. M. and Kathleen A. Tritschler (1989). *Practical Measurements in Physical Education and Sports*, Philadelphia: lea Fibiger.
  4. Butt ,D.S., *Psychology of sports* (united states of America; Van Notsrand Reinhld Company,1977. P.;15
  5. Cochran, Sean and Tom House. (2000). *Stronger Arms and Upper Body*, Champaign Illinois: *Human Kinetics Publishers Inc*.
  6. Dick, Frank W. (1980). *Sports Training Principles*. London: *Kimpones Publishers*, p.87.