SUMMARY OF PH.D. THESIS OF MR. Arvind Singh

CONSTRUCTION OF PREDICTION MODEL OF BOXING PERFORMANCE ON THE BASIS OF SELECTED PHYSICAL, PHYSIOLOGICAL, ANTHROPOMETRIC AND PSYCHOLOGICAL VARIABLES FOR INDIAN BOXERS

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INTRODUCTION
Scientific investigation of sports performance is the basic concern of sports scientist in the world for attaining peak in the world performance in different sports. Now the sportsmen have been able to give outstanding performance because of involvement of new scientifically substantiated training methods. All sports have the potential to become much more than athletics, in transforming symbols of a culture’s and country’s mood, insecurities, conflicts, and hopes. But perhaps no sport lends itself to this kind of transposition more than boxing. The purity of boxing gives it the nature of a blank canvas; there is no playing field or special equipment; the rules are few and easy to understand. There are two men, facing off with nowhere to go, with only their fists and their determination to decide their fate. Thus boxing easily becomes a metaphor for debates over our values: good vs. evil, immigrant vs. nativist, bravado Vs humility, and intellect Vs brute strength.

Today performance in sports not only demands systematic training to develop physical, physiological variable and technical aspect of sports but also demands training and consideration of psychological characteristics for success in this field.
The game of boxing is supervised by a referee who works within the ring to judge and control the conduct of the fighters, rule on their ability to fight safely, count knocked-down fighters, and rule on fouls. There are up to three judges typically present at ringside to score the bout and assign points to the boxers, based on punches that connect, defense, knockdowns, and other, more subjective, measures. The size of a standard boxing ring should be between 16 feet and 25 feet to a side between the ropes with another 2 feet outside. The platform of the ring must be raised 3 feet -4 feet from ground level along with posts rising around 5 feet. The floor of the boxing ring is usually made of heavy gauge steel, plywood boards and shock absorbing foam underneath a canvas sheet. Not more than 11 m of soft gauze bandage must be used per hand, the width of the bandage should not be more than 2 inches in width, it should be held in place by not more than 8 feet of adhesive tape that has 1 and ½ inches of width. It must be ensured that the tape does not cover any part of the knuckles when the hand is clenched to make a fist.

Boxing is one of the oldest martial arts styles of the western hemisphere of this world. It is also known as fist pugilism or pugilism of the fist. In other words, boxing is a sport of fighting
with the fists. Basically, the game of boxing is generally played by two players where they fight, knocks each other on the basis of proper techniques. Some of the equipment’s include boxing gloves, headgear, shoes, punching bags, rings, mouthpiece and hand wraps etc. These gears will be highly helpful to the players because these instruments will protect them against damages at the time of fighting against one another.

STATEMENT OF THE PROBLEM

This purpose of the study is to construct a prediction model of boxing performance on the basis of selected physical, physiological, anthropometric and psychological variables for Indian boxers.

HYPOTHESIS

It may be hypothesized that selected physical, physiological, anthropometric and psychological variables may not predict a model of boxing performance based selected variables for Indian Boxers.

SELECTION OF SUBJECTS

A total of 80 national level male boxers were selected as subjects for this study. All the players were in the age group of 18
to 35 years. The purposive method of research design was used to select 80 boxers from the 60th senior men national boxing championship held at Malleshwaram Urdu School, Bangalore, Karnataka in the year 2018. It was decided that eight boxers who would qualify for quarter final matches in each weight category will be selected as subjects for this study. Accordingly, eighty boxers i.e. eight boxers form each weight category who qualified for the quarter final matches of national championship were selected as subjects for the study.

**STATISTICAL ANALYSIS**

The obtained data was analyzed with the help of descriptive statistics and Regression analysis. The data was analyzed with statistical software i.e. SPSS (19 Version).

**CONCLUSIONS**

On the basis of the findings and within the limitations of the study, the following conclusions may be drawn:

1. It may be concluded that explosive leg strength, running speed, cardiovascular endurance and agility do not contribute to boxing performance.

2. It may be further concluded that vital capacity of lungs, oxygen holding capacity of lungs and resting heart rate do
not contribute significantly to boxing performance at national level in India.

3. It may also be further concluded that level of aggression, level of anxiety, level of self-confidence and level of achievement motivation does not significantly contribute to boxing performance of national level male boxers.

4. It may also be concluded that physique of the boxers and hypertrophy of the biceps muscles do not significantly contribute to boxing performance of national level male boxes of India.

5. It may further be concluded that no prediction model of boxing performance can be developed on the basis of selected physical, physiological, anthropometric and psychological variables for all the ten weight categories in boxing.

**RECOMMENDATIONS**

1. It is recommended that a similar study be conducted on large sample size of boxers from each weight category at national championship.
2. It is further recommended that similar study be conducted on women boxers of India at different levels of competitions.

3. It is further recommended that a case study be conducted on Indian Olympic medalist i.e. Vijender Singh and MC Mary Kom.

4. It is recommended that a comparative study on selected physical fitness, psychological and anthropometric variables be conducted between medalist and non-medalist boxers of India among male and female boxers separately.

5. It is further recommended that a comparative analysis of body biomechanics during bouts of national level and international level boxers be carried out to find out strength and weakness of Indian boxers in the both male and female boxers.