

## A study on physical fitness test for wrestlers

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### Abstract

This article represents an initial attempt to define the physical and physiological characteristics of wrestlers performing at the professional level, thereby establishing a base line to which future investigations can be compared. The present study, the scholar wanted to investigate new scientific approach for boosting up performance of wrestlers. Therefore, he took up this comparative study of psychological and physiological variables among categorized skilled wrestlers from different teams participated to know the contribution of psychological and physiological variables among wrestlers from different performance.

**Keywords:** wrestling, psychological, physiological characteristics

### Introduction

The game *wrestling* with its rules and regulations and playing setup is being popularly played in India. The Indian talent also represent nation at International level with full of spirit. The Govt. of India spends a handful of amount in this sports with a view to gain an international recognition at the platform of world sports.

### Achievement Motivation

It can be defined as the need for success or the attainment of excellence. Individuals will satisfy their needs through different means, and are driven to succeed for varying reasons both internal and external.

Achievement motivation is an integrative perspective based on the premise that performance motivation results from the way broad components of personality are directed towards performance.

As a result, it includes a range of dimensions that are relevant to success at work but which are not conventionally regarded as being part of performance motivation. The emphasis on performance seeks to integrate formerly separate approaches as need for achievement with, for example, social motives like dominance. Personality is intimately tied to performance and achievement motivation, including such characteristics as tolerance for risk, fear of failure, and others.

Achievement motivation can be measured by The Achievement Motivation Inventory, which is based on this theory and assesses three factors (in 17 separated scales) relevant to vocational and professional success. This motivation has repeatedly been linked with adaptive motivational patterns, including working hard, a willingness to pick learning tasks with much difficulty, and contributing success to effort.

Achievement motivation was studied intensively by David C. McClelland, John W. Atkinson and their colleagues since the early 2010s. This type of motivation is a drive that is developed from an emotional state. One may feel the drive to achieve by striving for success and avoiding failure.

In achievement motivation, one would hope that they excel in what they do and not think much about the failures or the negatives. Their research showed that business managers who

were successful demonstrated a high need to achieve no matter the culture.

### Anxiety

It is strong desire or concern to do something or for something to happen. Anxiety is manifested in a variety of ways, sometimes the individual experiences it as merely a sense of harmless dread, without being able to identify why or of what he is fearful. Psychiatrists call this, "Free Floating Anxiety" to indicate that it is not attached to any specific object. Psychiatrists diagnose this condition as "Anxiety State".

Anxiety is a disorder within the personality, arising when there is clash between incompatible or conflicting tendencies as when a person is torn between conformity and rebellion, resolution and temptation or is troubled by reminders of gap between what he is and what he pretends to be.

Anxiety is not really a synonym for stress although it is sometimes regarded as a by-product of stress (or) perhaps more precisely, it is often related to a single aspect of stress.

Anxiety, stress and worry are major areas of concern. It is estimated that many young athletes drop out of organized sports each year due to frustration and fear of failure.

Many young athletes thrive on the pressure and tension associated with competitive sport, a too many find that the experience precipitates feelings of apprehension and stress.

Studied of the phenomenon of anxiety and how it affects the athlete's experience present numerous strategies designed to intervene and reverse the negative effects of anxiety on the athlete.

### Vital Capacity

It is the greatest volume of air that can be expelled from the lungs after taking the deepest possible breath. A person's vital capacity can be measured by a wet or regular spirometer.

In combination with other physiological measurements, the vital capacity can help make a diagnosis of underlying lung disease.

Furthermore, the vital capacity is used to determine the severity of respiratory muscle involvement in neuromuscular disease, and can guide treatment decisions in Guillain-Barré

syndrome and myasthenic crisis.

A normal adult has a vital capacity between 3 and 5 litres. A human's vital capacity depends on age, sex, height, mass, and ethnicity.

### **Blood Pressure**

It is the pressure exerted by the blood against the walls of the blood vessels, especially the arteries. It varies with the strength of the heartbeat, the elasticity of the arterial walls, the volume and viscosity of the blood, and a person's health, age and physical condition.

It is usually measured at a person's upper arm. Blood pressure is usually expressed in terms of the systolic (maximum) pressure over diastolic (minimum) pressure and is measured in millimeters of mercury (mm Hg).

It is one of the vital signs along with respiratory rate, heart rate, oxygen saturation and body temperature. Normal resting systolic (diastolic) blood pressure in an adult is approximately 120 mm Hg (80 mm Hg), abbreviated "120/80 mm Hg".

### **Performance**

It is something very good and difficult that you have succeeded in doing any event e.g. whichever way you look at it and Olympic silver medal is remarkable performance for one so young (Cambridge Advanced Learner Dictionary).

### **Review of Related Literature**

Psychology is the study of human nature scientifically and rather than formulate condition. Psychology plays a major role in sports and is closely associated with psychological components. Sports psychology is defined as the scientific study of human behaviour in sport.

Like the other discipline with in sports and exercise science, sports psychology can be applied to varied skilled movement physical activities and exercise programmes, such as corporate fitness, exercise rehabilitation and health oriented exercise programmes as well as traditional physical education and competitive athletics. (Diane L. Cell, 2012) <sup>[6]</sup>

While doing any job when one suspects about the proportion of possibility of success is known as anxiety. Anxiety is psychological factor which differs from arousal. It encompasses some degree of activation and an unpleasant emotional state. This form anxiety is used to describe the combination of intensity of behaviour and directional effect or emotion.

Anxiety plays an important role in the acquisition of motor skills as well as in athletic performance. Anxiety can either enhance or inhibit performance whether its effect is positive or negative depends on how an individual athlete perceives the situation. People with low trait level have been known to perform better in selected motor skills than those with high or trait levels.

There is also positive relationship between participants in athletic competition. A moderate level of anxiety seems best for the acquisition and performance of motor skills levels of anxiety either too high or too low tend to inhibit learning and performance. (Diane L. Cell, 2012) <sup>[6]</sup>

Motivation means move to achieve. In psychology the term motivation or motive refers to activation from within in the organism. The motivation is termed as the urge to push towards a specific goal. Motivation is a concept invented to describe the psychological state or the organism as it is

affected by various influences.

A person is motivated when he desires some goal, a goal that will meet his need or satisfy his interest. Many psychologists believe that all behaviors are motivated, although it is extremely difficult to isolate specific motivational variables.

According to Alagaonkar, (2010) <sup>[1]</sup> motivation as a personality characteristic related to the general state of arousal and subsequent level of attention paid to a problem or task facing of an individual. Level of achievement motives is positively related to success. Achievement related motives may be more successful in predicting behavior in sports selling.

Today's sportsperson faces some unique challenges. The standard are higher, the competition is tougher and the stakes are greater attention in these days. Coaches, physical educationists and sports scientists have always expressed a great need to know more about the performance related variables which are helpful in improving the motor skills of the players.

Today's world is a competition, the rivalry to reach top and excel each other is so much. Every aspect that contributes for the excellence is carefully looked in and one of such aspects is the selection of the right person for the right event in sports and games, during which normally a choice of selection is given to that the player or the athlete. The players without knowing their inherent potential make wrong selection suiting to the individual concern and are not able to reach the top of the ladder of sports arena.

Man by nature, is highly competitive and in pursuit of performance he has always been striving to jump higher and farther, to run faster and to demonstrate greater strength and skill. Physical fitness places emphasis on more and more activity.

The preparation of an athlete today for achievement is a complex dynamic matter, characterized by a high level of physical and physiological efficiency and the degree of perfection of necessary skills, knowledge and proper teaching and tactics. An athlete arrives at this state only as a result of corresponding training sports activity directed at steadily enhancing the preparation of an athlete and grooming him for a higher level achievement.

The physique and body composition, including the size, shape and form are playing significant role to enhance sports performance. The performance of sportsman in any game or event is also dependent on his suppleness, skill training, motivation and various physiological and bio-mechanical nature. Age, sex and physical growth have also been noticed to influence a person's capacity for physical activity.

Games and sports as a part of human education have always existed in the human society. Before the dawn of civilization and culture, physical exercise was very important aspect of human existence. In the primitive society, the "necessity for survival" motivated man to keep himself more physically fit and strong enough in comparison with stronger forces for nature (Kamlesh, 2011) <sup>[8]</sup>.

Sports is as old as the human society and it has achieved an universal recognition in the modern times. It now enjoys a popularity which outstrips any other form of social activity. It has become an integral part of educational process. Millions of fans follow different sports events all over the world with enthusiasm and devotion.

Man participates in activities for the fun of it, for health,

strength and fitness. It faces the shape of a profession to some sportsman with high skills and ample financial benefits linked with high degree of popularity (Sergio, 2011) <sup>[9]</sup>.

### Research Methodology

The subjects are selected for the study those who have played wrestling at different level of performance, i.e., State level, Inter-college level, University and National level.

For the present study, 200 (100 male and 100 female) wrestlers (age: 17-23 years) from six universities of Haryana State viz. (Kurukshetra University, Maharishi Dayanand University, Chaudhary Devi Lal University, Guru Jambheshwar University of Science & Technology, Chaudhary Ranbir Singh University and Ch. Bansilal University) are selected.

The coach was graded each individual player out of 10 points, which measured subjects playing ability.

Researcher administered various tests for the chosen variables collected the necessary data. The sports fitness variables and playing ability variables were conducted under the supervision of experts.

### Analysis of Study

The comparative study of selected psychological and physiological variables of selected wrestlers was analyzed by computing Pearson's Product Moment Correlation Method.

Product Moment Correlation was compared for psychological and physiological variables like vital capacity, anxiety, blood pressure, achievement motivation.

Though Wrestling started as a recreation game, but today it has become more technical and complicated with its dynamic movements and stereo-typed strategies on offence and defence skills and governing rules of the game making one of the fastest and competitive game in the world.

The proper execution in playing situation is based entirely on scientific biomechanical principles. The sportsfitness components such as strength, speed, play a vital role in wrestling.

The purpose of the study was to find out the significant difference on sports fitness components and the ability of performance among wrestlers.

The variables were selected based on the discussions with experts, feasibility of the criteria, availability of tools, and the relevance of the variables to the present study.

The investigator selected the following variables.

### Sample

Two Hundred (N=200) Wrestlers were pooled randomly as sample. The criteria for inclusion and exclusion of the subjects will be as follows:

- The players who are the regular practitioners of Wrestling will be included in the experiment.
- The subjects who are expected to remain present till the experimental trials are finished will be incorporated in this study.
- The subjects irrespective any community, willing to participate in this study, will be incorporated.
- The players suffering from known serious health problems are to be excluded. Moreover, players having incapacitating physical illness as ruled out by clinical investigation will be excluded prior to the study.

We, the Indians are very much concerned with the performance and status of the wrestlers at deferent levels. But, the performance is final out-put and the status includes various other aspects in addition to the performance. In the world of sports, every participating individual and spectator generally, eye to the positioned wrestlers and they also become in the main line-light in the field of sports. He selectors at various levels generally considered the performance in the trial and qualifying competitions, whereas, the physical fitness and physiological basis most of the time as ignored variable.

The performance at high level or outstanding performance are based upon the foundation of the athlete, which should also be strong and potential.

The foundation of athlete starts from his initial developmental phase. The development stage starts with the 'teen age' period. The teen age ranged 13 to 19 years. The teen agers generally fall at State going category. So, investigator concerned treated the research study on State going male students. The basis of performance may be mainly considered on physical fitness and physiological fitness variables and other variables depending upon the requirement.

### Conclusion

In Haryana, the States are different nature. In which two main categories may be defined as: 1 Government State, governed by the Board of State Education Haryana. 2. Public State, governed by private management and recognized by the governed by the Board of State Education Haryana.

The norms for managing the State under Directorate of Education are the same for self- governed States and privately governed States. The investigator selected these two categories of State for the present study. The investigator decided to take-up the study related to the variable of physical fitness and physiological fitness.

As far as, the norms are concerned for government and public States regarding admission criteria eligibility, prerequisite qualification, infrastructural facilities, curriculum and course contents etc., are prescribed similar for these two categories of States. The investigator decided to concentrate on Government and public States to know the status, physical and physiological status of male students.

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