



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2017; 2(2): 87-90

© 2017 Yoga

www.theyogicjournal.com

Received: 29-05-2017

Accepted: 30-06-2017

Ashok Kumar

PGT Physical Education, DAV  
Safidon, Haryana, India

## Psychological and physiological variables for wrestlers

Ashok Kumar

### Abstract

From ancient times to this electronic age, human beings have the tendency to excel in every field of life. A large numbers of countries in the world always work hard and try to achieve the top most position in the field of games and sports, that's why they tries to produce top class /excellent sportsmen/ players' who put colourful feathers in the cap of their country/ nation. Enhancement in the performance of sportsman is the focal point of attention for their coaches / physical education teachers/ researchers/ sports scientists and physical trainers of the country. It is in fact that the records in the history of games and sports which were established in the past were re-written in the present times, this is due to the constant development/ research in the field of games and sports. This research indicates an initial attempt to explain the physiological and physiological aspects of wrestlers performing at the professional level, thereby establishing a base line to which future investigations can be compared and he took up this comparative study of psychological and physiological aspects among categorized skilled wrestlers from different teams participated to know the contribution of psychological and physiological aspects among wrestlers from different performance.

**Keywords:** wrestling, psychological, physiological aspects

### Introduction

Games and sports are not new to the people of this world. Indeed games and sports were stated when man came into existence on the earth. To understand it clearly, we will have to peep into over past. The prehistoric evidence confirmed that the physical activity were important part of life. The major differences between today games and sports and that of the past is that their are set rules and regulation of each and every game and sports at present time, but in the past their was no set rule. To perform of any kind of work energy is required. So, energy is the capacity to do work. Physiology is the branch of science which deals with the study of the functioning of organs, their relationship with other organs and their effects. There are various systems in our body which are responsible for good wrestlers and which are as follows:

1. Skeletal
2. Muscular
3. Circulatory
4. Digestive
5. Nervous
6. Glandular
7. Excretory

As a result of regular physical activities / exercise, many changes occur. Some are of permanence nature and some of temporary, but all these have positive effects on human efficiency.

### Effects of exercise on various systems

The basis of human activities is motion. In other words it is said that the movement of the human body is possible only by the contractibility of muscles. So the muscles are specialized tissue which enables the body parts to move. There are three types of muscles involved in the wrestler body i.e. voluntary, involuntary and cardiac muscles. Involuntary muscles or smooth muscles are also called as unstriped muscles.

Some changes of permanent nature take place in our muscular system when we do regular exercises. These changes are the result of regular exercises and if these exercises changes are

Correspondence

Ashok Kumar

PGT Physical Education, DAV  
Safidon, Haryana, India

the result of regular exercises and if these exercises are done once then the changes in the muscular system are of temporary nature. The following are a change that takes place when we do regular exercises:

**Shape and size of muscle changes:** with the help of regular exercises, the shape and size of the muscle changed. As the cells of muscles are enlarged with changes the shape and size of muscle.

**More capillaries are formed:** when we do regular exercises, the colour of the muscles is changed because a number of new capillaries are formed in the muscle which improves the efficiency of the blood circulation.

**Muscle remains toned up:** when there is a regular schedule of exercises then the muscles remain in toned position. Muscle remains under some degree of contraction. With the help of regular exercises muscles become firm and maintain a slight, steady pull on the attachments.

**Control extra fats:** the extra fats of body are controlled with the help of regular exercises. The calories which are taken in the form of fat are burnt by the exercises.

**Change in the connective tissue:** with the help of regular exercise the connective tissues, which connects fibers become powerful. The stress of strenuous or hard activity bear by these tissues and these can be extended up to some extent.

**Efficiency in movements of muscles:** with the help of regular exercises the movements of muscles become efficient and smooth and these movements become attractive during different activities.

**Delays fatigue:** regular exercise reduces fatigue. The fatigue is due to the formation of carbon dioxide, lactic acid and acid phosphate. With the help of exercises the accumulation of carbon dioxide, lactic acid and acid phosphate becomes less which helps to delays fatigue.

**Increased food storage:** the regular exercises increases the food capacity as the food which is stored utilized immediately when its need felt.

**Non- functioning fibers become active:** when we do not do any kind of activity, the muscle fibers of body do not perform any work and becomes in active. But with the help of exercises these fibers remains active throughout the day which increases the strength of the body.

**Corrects the body posture:** with the help of regular exercises the strength of the muscles increase which help to correct the body posture. With the help of exercises the postural deformities do not occurred and if there exists any deformity related to posture it can be removing with the help of exercises.

**Reaction time improves:** the reaction time can be improved with the help of exercises as the speed of nerve impulses increases. These nerve impulses move very quickly through motor nerves from nervous system to muscle fiber, which improves the reaction time.

On the body of a wrestler, the effect of exercise on circulatory system at the time of exercise the blood circulates at a faster

rate to provide more energy to the muscles which are engaged in the activity. When we do exercises there are changes takes place, some are of temporary nature and some are of permanent nature. The effect of exercises as compared to muscular system is more on circulatory system. There occur several changes in circulatory parameters positively of few weeks of training. By this training the heart undergoes both morphological and functional changes i.e. size and weight of the heart as well as changes in heart's parameters. The morphological changes include the hypertrophy of the heart muscles and dilation of atria and ventricles. The changes which take place are as follows:

Size of the heart increases, heart rate decreases, stroke volume increases, reduces cholesterol level, number and efficiency of capillaries increases, number of R. B. C.'s and W.B.C.'s increased, delay in fatigue, recovery period becomes fast and prevention from diseases.

By doing all these regular exercises the diseases like high blood pressure, heart problem and so many other diseases are kept away.

The effects of exercises on respiratory system; as we know that all the systems of the body are interrelated to each other and if there is effect of exercises on respiratory system, then it is also affects circulatory and muscular system also. This means that the effects produced on respiratory system by exercises improves lungs capacity and improves gaseous exchange. The effects of regular exercises on respiratory system are as follows:

Tidal volume improves, vital capacity improves, respiration rate decreases, maximum oxygen uptake improves, faster recovery rate, improve aerobic capacity and increases endurance.

With the help of regular exercises and for a longer period, the endurance is increased. Due to which the activity can be done for a longer duration without taking any rest. Those individuals who do not do exercises daily cannot continue the activity for a longer time. Hence, it is said that exercises can increase the endurance of an individual.

The effects of exercise on digestive system: the exercises play an important role in the improvement of digestive system. It has two way effects on our digestive system i.e. positive effects and negative effects. Positive effects are permanent in nature whereas negative effects are of temporary nature.

Psychology is "a science of human behaviour in relation to particular sports situation a According to RN. Singer:" Sports Psychology is encompassing scholarly educational and practical activities associated with the understanding and influencing of selected behaviour of people in athletics, social education, vigorous recreational activities and exercise"

In psychological aspects the first and the important variables is Achievement and Motivation in sports:

### **Achievement and Motivation**

Achievement is known as the physical output (performance) in activity. Whenever a person follows a path of learning, he may acquire new skills. After learning new skills he feels satisfied. This satisfaction of success is known as achievement. After achievement the individual (person) becomes confident and encouraged.

High performance fitness (HPF) of the player depends on their ability to motivate the athlete, to motivate others because of his or her need to achieve recognition or a promotion, The achievement records of students are sometimes considered as measures of teacher's success, Teacher can motivated by the self satisfaction, they feel when the achievement records of a

class improve. For the coach, motivation may be based on a need for recognition and achievement, as measured by win-loss records, the satisfaction of seeing the continued success of their former students can also motivate coaches, as can the need for job security.

Performance = Teaching + Motivation  
(Behaviour of situation) (Past experience)

Improvement of performance in all motivated groups was however, significantly greater than that of the non-motivated group. The origin of motivation lies in the drives and needs of each individual, Drive is as the activator of behaviour. Drive can be either primary or secondary. Primary drives are those initiated by receptors that receive information and transmit it to central nervous system (CNS). Primary receptors notify as of hunger, thirst etc. Secondary drives are usually conditioned as in learned drives fear and anxiety. High performance fitness (HPC) Require "Drive" Drive is necessary for success. Need have been classified as either sociological physiological or psychological in origin.

A physiological need includes food, rest, self protection and activity. Psychological needs includes; Love, acceptance belonging, self esteem and self acclimatization. We are all motivated to fulfill psychological needs. Participation in sports gives young people an opportunity to demonstrate physical skill to gain social acceptance and increase self esteem.

Sociological needs are closely associated with psychological needs.

Sociological needs include the need of security, mastery, recognition and belonging.

#### **Achievement and motivational factors in sports for wrestlers**

Motivation and achievement are inter-related, if there is proper motivation then achievement performance is better. If motivation is less then there is poor performance. In competitions, achievement is very much required that's why the motivational factors must be considered for getting good results. A high level of performance can be achieved and bring good winning results with the help of motivational factors like;

**1. Good Health:** The good health of a wrestler player always a motivating factor. It encourages an athlete/sports person to participate to maximum level in sports activities. Thus, achievement is high.

**2. Apparatus and Play Fields:** Good quality apparatus, equipments and good play fields improve the performance of a wrestler player.

**3. Environment:** Healthy, clean and hygienically environment motivate the players participate to the maximum. Thus increases the performance of wrestler.

**4. Practice / Coaching / Guidance:** If a player is very well aware about how perform or how to do that activity, then his performance is better. This can be achieved if player had sufficient practice in past. Good coaching skills improve the performance. Guidance during activity has an important role in performance

**5. Punishment and Reward:** If player is aware that what he

gets from it or if he fails to do so then what he loses or gets punishment then performance is better.

**6 Interaction Between Own Teammates:** An interaction between own teammates improves performance during competition.

**7. Organization and Officiating:** Good organization, impartial officiating, goal judgment etc. encourage the players towards the better performance.

Motivation is the process in which the learner's internal energies or need are directed towards various goal objects in his environment. In other words, Motivation is the condition which increases the desire to perform better. According to Goods, "Motivation is a process of sustaining and regulating activity. The word motivation is derived from the Latin language word named as "Motum" which means move, motor and motion. Motivation is of following types:

- 1. Positive Motivation / Internal Motivation / Natural Motivation:** In this type of motivation, the wrestlers do or perform any type of work by his own will. By performing this type of work (work according to one's will.) The wrestler becomes happy by doing such type of program. This type of motivation is also known as intrinsic motivation.
- 2. Negative Motivation:** In negative motivation, the wrestler does not perform any type of work by his own will. Any type of work which is done by him is due to some pressure or force on him. By performing such type of work the wrestler does not become happy and feel satisfaction. Teachers always try to keep the influence of study load normally upon the wrestler by providing the important information with the topic concerned is positive and if it is reverse then it is known as negative motivation
- 3. External Motivation / Artificial Motivation:** It is motivation which is provided from the outside and is not present within the sportsman or athlete and is a part of environment has great effect on the learning process and performance of an individual. Artificial motivation is given in the shape of knowledge of goal and its results, reward, punishment, active participation, audio-visual aids, cooperation and competition, relationship between trainer / coach and player / student, effective training methods, latest equipment and healthy environment.
- 4. Extensive Motivation:** To motivate the wrestlers, mainly positive motivation is given more importance. The only reason behind it is only due to negative motivation, the athlete loses their interest and on the other hand to complete the same work, the wrestler starts applying some incorrect methods. Thus trainers should always try to give positive motivations to the athletics person than that of negative motivation.

#### **Review of related literature**

**According to Kelly:** "Motivation is the central factor in the effective management of the process of learning"

**According to Crow and Crow:"** Motivation is considered with the arousal of the individual in learning and to the extent it is basis to learning"

**According to Atkinson:** "The arousal of tendency to act, to produce one or more effect.

**According to Guliford J.P"** Any particular interval factor or condition that tends to initiate and sustain activity.

**According To Bernard H.W** "Those phenomena which are involved in the stimulation of action towards particular objectives which previously there was little or no movement towards these goals.

**According To Hebb D. O:** "Motivation refers to existence of an organized group sequence, its direction and content and its persistence in giving direction or stability of content"

**According To Derver James:** "Motivation is an effective conative factor which operates in determining the direction of an individual behavior towards an end or goal consciously apprehended or unconscious.

**According to Goods:** "Motivation is the process of arousing, sustaining and regulating activity.

**Accessing to Maslow:"** Motivation is constant never ending, fluctuating and complex and is an almost universal characteristic of particularly every organismic state of affairs"

**According to Jhonson:"** Motivation is the influence of general pattern of activities indicating and directing the behaviour of the organism"

**According to Thomson M.K:"** Motivation covers each and every factor of the springs of human action from the beginning to the end i.e. attitude, bias urges, impulse, drive, craving incentives, desires, wish, interest, will, intention, longing and aims "

**According to Alagaonkar, (2010)** 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.

In the past sports and games were alive in the form of physical activities which were indispensable, need of that time. The physical activities like jumping throwing and climbing were a part of man's life in order to save him from wild animals and hunting for meal. "Survival of the fittest" was the requirement of that time. In the past tribal people hunting dancing and chasing the wild animals were part of their life. Youths were given training to develop their physical training to develop their physical fitness slowly and steadily. It is clear from the above said fact that the games and sports which are played today have their roots in the past. Although there were simple rules and regulations but today's games and sports are played with advanced techniques and with the scientific approach.

In today's term it is quite applicable, but we cannot forget the origin of various games and sports which we received in heritage. So sports and games are man's cultural heritage. These games are not the product of modern era but these sports and games were famous in ancient times also. We received these sports and games in heritage.

## Conclusion

So, the present study revealed or it is concluded that the fitness (psychological fitness and physiological fitness) is necessary for the wrestler in every walk of life. Its level may vary from a common man to that of an international wrestler person. The more and more stress should be laid down upon the physical fitness and physiological fitness of a wrestler.

We should never forget that the battle of waterloo was won at the play field of ETON. Only the physical and the physiological fit people can make a nation strong. Swami Viveka Nanda also said "Today we do not need Bhagwat Geets but football field". In fact he laid stress on physical fitness of our citizens so that they can ameliorate (make) the nation's honour and prestige.

## References

1. Abellán A, Pallarés J, Gullón J, Otegui X, Baños V, Moreno A. Anaerobic factors to predict wrestling performance. *Cuadernos De Psicología Del Deporte* 2010; 10:17-23.
2. Almansba R, Franchini E, Sterkowicz S. Uchi-komi avec charge, une approche physiologique d'un nouveau test spécifique au judo. *Sci Sports*. 2007; 22(5):216-23.
3. Arabacı R, Çankaya C. The effect of seasonal training program on some physiological parameters among cadet and junior wrestlers. *Int J Hum Sci*. 2008, 5(2).
4. Astrand P, Rodahl K. Evaluation of physical work capacity on the basis of tests. *Textbook of work physiology*. 1977, 333-65.
5. Alagaonkar. Assessment and interpretation of aerobic fitness in children and adolescents. In J.E. Holloszy (Ed.), *Exercise and Sport Science Review*. Philadelphia, PA: Williams & Wilkins Publications, 2010, 435-476.
6. Baić M, Sertić H, Starosta W. Differences in physical fitness levels between the classical and the free style wrestlers. *Kineziologija* 2008; 39(2):142-9.
7. Barroso BG, Silva JMA, Garcia AdC, Ramos NCdO, Martinelli MO, Resende VR *et al.* Musculoskeletal injuries in wrestling athletes. *Acta Ortop Bras*. 2011; 19(2):98-101.
8. Basar S, Duzgun I, Guzel NA, Cicioğlu I, Çelik B. Differences in strength, flexibility and stability in freestyle and Greco-Roman wrestlers. *J Back Musculoskelet Rehabil*. 27(3):321-30.
9. Bale P. A review of the physique and performance qualities, characteristics of game players in specific positions on the field of play. *Journal of Sports Medicine and Physical Fitness*. 2011; 20:109-121.
10. Bell W, Rhodes G. The morphological characteristics of the association Wrestling. *Journal of Sports Medicine & Physical Fitness*. 2011; 20:200-200.
11. Blume DD. Zu einigen wesentlichen theoretischen Grundlagen für die Untersuchung der koordinativen Fähigkeiten. *Theorie und Praxis der Körperkultur*, 2008; 1:29-36.
12. Bouchard C, Shephard RJ, Stephens T. *Physical activity, fitness, and health*. Champaign, IL: Human Kinetics, 2012.
13. Caru B, Lecoultre L, Aghemo P, Pinera LF. Maximal aerobic and anaerobic muscular power in wrestlers. *Journal of Sports Medicine & Physical Fitness*. 2010; 10:100-103.
14. Chatterjee S, Chakroborty B. Comparative study of maximal aerobic capacity by three ergometrics in untrained college women. *Japanese Journal of*

Physiology. 2011; 36:151-162.

15. Kamlesh. Determination of the ideal body weight and corporal composition of 16 professional soccer players. Questions of athletes nutrition: Abstract of the reports of the international symposium. Leningrad: Leningrad Institute of Physical Culture, 2011.
16. Sergio. Wrestling: the common threads between the games. In T. Reilly; A. Lees; K. Davids & W.J. Murphy (Eds.), Science and Wrestling (3-19). London: E & FN Spon, 2011