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**A STUDY OF MENTAL TOUGHNESS BETWEEN INDIVIDUAL GAME AND TEAM  
GAME PLAYERS**

**SHAKIL AHMED SIDDIQUI**

RESEARCH SCHOLAR SUNRISE UNIVERSITY ALWAR

**DR. RAJANI**

ASSOCIATE PROFESSOR SUNRISE UNIVERSITY ALWAR

**ABSTRACT**

Mental toughness refers to a collection of psychological characteristic which are central to optimal performance. Athletes, coaches, and sport psychologists have consistently implicated mental toughness as one of the most important psychological characteristics related to success in sports. Over the last few decades, numerous studies have been conducted to examine the role of mental toughness in sporting success. However, its conceptualization and measurement are without consensus. The purpose of this study is to systematically review some of the emerging definitions and conceptualizations, and examine how mental toughness could be nurtured. This review considers both qualitative and quantitative approaches to the study of mental toughness with the specific focus on the models and the development of the measurement of this construct. Although these discussions center on the general aspects of mental toughness, we believe many of the issues have relevance to scholars and practitioners who are interested in the measurement of psychological variables as they pertain to sport, exercise, and other performance or achievement contexts.

**KEYWORDS:** Mental Toughness, Individual Game, Team Game, Players, psychological characteristic

## INTRODUCTION

People's lives are becoming more and more centred on sports. It started off as a rather basic occupation, but has now evolved into a highly structured human endeavour. As an athlete, you must have the capacity to perform effectively under pressure as well as physical and mental stamina in order to be successful. In order to compete in competitive sports, one must have a high degree of physical ability, as well as strong mental attention. Competitors' ability to differentiate themselves is becoming more difficult in an era when athletes are becoming increasingly similar in terms of their physical appearance, technical proficiency, and tactical knowledge. When competing in today's highly competitive environment, it is very difficult to maintain mental toughness and perform well under immense pressure. Mental toughness is in great demand since more physical and mental energy is required, and mental toughness is vital for this. Players are evaluated by coaches, managers, teammates, fans, the press, and the media before, during, and after a performance by these individuals. It's very uncommon for players to be forced to make split-second decisions and precise movements in response to an opponent's move, which may have far-reaching repercussions in games of all levels.

Understanding the role of sport psychology in helping athletes improve their athletic abilities is critical. Sport disciplines and competitions, in terms of the types of sports, also include a range of characteristics due to the distinct psychological behaviours that athletes encounter. There are distinct differences between team sports and individual sports when it comes to expectations. A person is compelled to act a specific way because of the nature of sports. Because of the nature of team sports like football, basketball, handball, and others, players incur a high number of fouls during competition, causing them to feel bad and exhibit undesirable behaviours. Individual sports, on the other hand, place players in a position of reliance on their own inherent ability.

Individual sports have one-dimensional performance standards, but team sports performance is dependent on the performance of teammates. In contrast to solo sports, where players practice alone for long periods of time, team sports require them to work closely with their colleagues and spend a significant amount of time training with them. As part of the International Journal of Physical Education, Fitness and Environment, athletes in certain solo sports may devote more

time to mental training than in team sports. Unlike in solo sports, where the outcome is either winning or losing and there is no tie, in team sports there is a wide range of outcomes.

## **COMPARISON OF PHYSICAL FITNESS VARIABLES BETWEEN INDIVIDUAL GAMES AND TEAM GAMES ATHLETES**

Being physically fit is a condition of health and well-being that includes both skill and health-related aspects. A person is said to be fit if they have enough energy to go through the day without feeling worn out and yet have a good time. In order to live a long, healthy life, older individuals need to maintain and enhance their physical fitness. It's a combination of skill-related traits like dynamic balance, power, speed and agility as well as health-related aspects like cardiovascular endurance and muscular strength. It is difficult to determine how much of a given fitness characteristic (e.g. muscular endurance) is necessary for a healthy quality of life since functional tests are specialised and normative rather than criterion-based. The performance of athletes is influenced by a variety of variables. Size, shape, and form, as well as the makeup of one's body, are all thought to have a part in this.

Physical fitness is an important factor in a sportsman's ability to compete in any given game or event. Muscular strength, agility, power, speed, and cardiovascular endurance are the five motor qualities that make up physical fitness or condition. As a result, these talents play a critical role in almost every sport. The primary goal of sports training is to improve and maintain one's physical fitness. Muscular power, also known as explosive power, is a mix of speed and strength that affects how hard a person can strike, leap, and push, among other things, in a vigorous performance. Strength, response time, speed of movement, and muscle coordination all have a role in agility, which is the capacity to swiftly alter the direction of one's body or components. Athletics requires a rapid start and stop, as well as a quick change of direction. Running speed is not only an athletic event in and of itself, but it also plays a significant role in almost every court and field game, and it may be the difference between a performer's success and failure. Physical fitness is essential to a person's well-being and productivity. Even today, physical fitness is more than just being able to do a task without exertion. A person's physical and mental well-being, as well as their social and emotional well-being, are all impacted by their level of physical fitness.

It's no secret that sports like football and basketball are very competitive, with athletes always striving to beat their own personal bests and set new ones. For him, the role of sports in developing character in children is perfect. Skill and physical fitness are required by nature of sport. Sports scientists, team physicians, athletic trainers, coaches, and players have formed tight ties to study new scientific techniques for selecting athletes as a result of the rising shift in sports' competitive attitude. Muscular strength, agility, power, speed, and cardiovascular endurance all play a role in sportsmanship. Physical, physiological, and psychological aspects all have a part in a performance's success or failure. Excellence can only be achieved with the right activities and fresh training approaches.

## **1 Motor Fitness between Sprinter and Long-Distance Runner**

Being able to have a healthy, productive life is referred to as being fit. The term "fitness" refers to the capacity to carry out a task. The capacity to have a healthy and balanced life is synonymous with being fit. The individual who is in perfect health has a positive attitude on life. The interaction between the central nervous system and the muscle has been referred to as "motor." The term "neuromuscular co-ordination" may also be used to describe this. Consequently, it's a neuromuscular component of fitness that allows someone to perform well in an activity, game, or skill that requires fine motor skills.

Agility, balance, coordination, power, response time, and speed are all examples of motor fitness components. The term "skill-related fitness" may apply to both motor and cognitive fitness. Physical fitness includes the ability to move well, which is a component of motor fitness.

Motor fitness may be broken down into a variety of components. It includes a combination of speed, agility, and endurance. Conditional components of motor fitness include things like these. Coordination, balance, adaption, response capacity, coupling, rhythm and differentiation ability are all part of the current concept of motor fitness.

## **2 Components of Motor Fitness**

**1. Speed:** The pace at which motion occurs, or more precisely, the rate at which a body's position changes, is known as speed. An additional subcategory of speed known as quickness

refers to the central nervous system's capacity to contract and relax muscles without the need for pre-stretching of the muscles.

**2. Agility:** The capacity to rapidly shift direction with explosive movements is what we mean by the term "agile." The capacity to quickly and precisely alter one's body's posture while moving is referred to as agility.

**3. Endurance:** The capacity to do a muscle action for a prolonged period of time without losing speed is what is meant by endurance. It's also referred to as one's capacity to maintain energy levels throughout time.

**4. Explosive strength:** Explosive force is the source of strength. How quickly you can unleash the greatest amount of power conceivable. It is regarded to be the muscle group's explosive strength.

**5. Reaction time:** Reaction time is the length of time it takes for the body to respond to a signal or stimuli. Reaction time is the amount of time it takes for a person to respond to a stimulus.

**6. Flexibility:** Without the interference of additional tissue, such as fat or muscle, a person may accomplish a wider range of motion.

**7. Balance:** Being able to keep a stable posture of one's body in varied situations is called balance.

## **MOTOR-PERFORMANCE PHYSICAL FITNESS**

The capacity of the neuromuscular system to complete specified activities is referred to as motor-performance fitness. Chin-ups, sit-ups, the 50-yard sprint, the standing long jump, and the shuttle run are among the motor-performance fitness tests (a timed run in which the participant dashes back and forth between two points). Skeletal muscular strength and endurance, as well as leg speed and power, are the major focus of these evaluations. Many sorts of sports need these characteristics to be successful. Some characteristics of health, such as muscular strength and endurance, are also linked to these factors.

Health-related fitness vs. motor performance fitness is a hotly debated topic among professionals. Although all forms of fitness are clearly beneficial, an individual's specific fitness goals should decide their respective significance. Motor-performance fitness should be prioritized if sports achievement is the main goal. If you're concerned about your health, you should concentrate on health-related fitness. It's possible for the same person to benefit from a variety of sorts of fitness at various points in time. A high school athlete's primary concern is likely to be his or her ability to move quickly and efficiently. Athlete success is less important to the average middle-aged person, who is more worried with his or her own health and attractiveness. An further consideration is that physical fitness for motor performance is heavily influenced by one's genetic makeup. The person who can run quickly at the age of 10 will still be able to do so at the age of 17 despite the fact that training may improve performance. Contrary to this, although genetics have a role in certain aspects of health-related physical fitness, one's exercise habits have a considerably greater impact.

## **MOTOR FITNESS VARIABLES AND PSYCHOLOGICAL VARIABLES**

The term motor fitness, while often used synonymously with physical fitness, was coined to include elements which involve more abilities than those basic physical fitness components yet was not to encompass the various neuromuscular coordination skills which make up general motor ability. Motor fitness takes into account efficiency of basic movements and therefore would involve such elements as power, agility, speed and balance.” that many earlier civilizations of the world such as Spartan Greeks, early Athenian Greeks and the early Romans laid great stress upon the physical fitness of their countrymen. Physical training was an important objective of their educational programmes. The countries which developed a strong nationalistic system of education in 19th and 20th centuries, such as the German Nazis, gave great importance to the physical fitness of their countrymen.

The USA during and after World War 1 and II, introduced an organized Physical training programme for the physical fitness of the youth and this continues even today.” “The term motor fitness became popular during World War II. Motor fitness may be defined as a limited phase of motor ability, emphasizing capacity for vigorous work. The aspects selected for emphasis are speed, endurance, power, strength and agility. More specifically, motor fitness might be referred

to as efficient performance in such basic requirements” as “running, jumping dodging, falling, climbing, swimming with sustained effort in a variety of situations.” Today life is the toughest of all competitions. It is to be handled with a degree of success and enjoyment. It requires strength, endurance, energy and the protection from stress and strain that only a physically fit body will provide. People in civilized communities are lacking in strength and endurance because of artificial life encouraged by modern civilization in which life is made as soft as easy as far as

possible with physical effort diminished to a minimum. The average man spends more time in attending his automobiles than attending his own machine--his body. Physically fit individual is mentally alert, emotionally balanced and socially well adjusted. He faces the day to day problems of life with confidence. He adopts a positive and optimistic attitude towards life. Physical well being is the basis of all forms of excellence. Physiologists generally consider human body as a living thermodynamic machine but there are certain remarkable differences between a human body and a machine. Unlike machines, which wear out more rapidly when they are used, “living organisms generally develop an adaptive increase in functional capacity in response to increased use and undergo a decrease in functional capacity when they are not used.” mentioned that the “development of a sportsman to enable him to achieve high level of performance is usually concentrated in four areas, namely Physical Process, social adjustment, psychological development and physiological efficiency.”

“For the physiological systems of the body to be fit, they must function well enough to sustain a particular activity that the individual is performing. Since different activities make different demands upon the organism with respect to circulatory, respiratory, metabolic, neurological and temperature regulating functions. Physiological fitness is specific to” each particular activity. “Physiological systems are lightly adaptable to exercise. Each task has its major Physiological components and fitness for the task requires effective functioning of the appropriate systems. In order to acquire the ability to” run fast and cover ever-increasing distance, certain changes in physiological functions are necessary, so that exercise capacity of an individual can be enhanced.

“The efficiency of an individual in performing Physical activities depends basically on cardio respiratory changes and Physical training causes development of cardio respiratory efficiency. Through this training the efficiency of circulatory and respiratory systems is improved, and

resting and exercise blood pressure values are lowered.” “Cardio-respiratory endurance is an extremely complex one and could be readily understood when the various elements of the cardio respiratory systems affected by exercise are recognized. These elements involve heart, the vessels, supplying blood to all parts of the body, the oxygen carrying capacity of the blood and the capillary system receiving the blood. Measurements of these elements include diastolic and systolic blood pressure and pulse pressure, heart rate, stroke volume of the heart and oxygen consumption. It may be regarded as the most important components of Physical fitness and also it is one of the prerequisites of physical fitness.”

“The motor coordinating ability in the given content is single out from the general and the less definite motion. Agility widely use in everyday life and the literature on physical education and the coordinative abilities we must understood first. Agility is the ability to change the body’s position efficiently, and requires the integration of isolated movement skills using a combination of balance, coordination, speed, reflexes, strength and endurance.” “Coordinative abilities have important and the strong links with the motor skills as motor coordination forms the basis of both. Coordinative abilities become effective in movements only through the motor abilities. Coordinative abilities should not be equated with motor skills, though both are interrelated and interdependent.

Both are determined by motor co-ordination process. In a motor skill, process is largely automatized for the execution of a particular movement. In coordinative abilities this processes are just stabilized and perfected for execution of a wide number of movements similar to each other.” “The sufficient training of coordinative abilities limits the performance ability especially at higher levels. On the contrary, better developed coordinative abilities provide an essential base for faster and the effective learning, stabilization and the variation in technique and their successful execution in game situation.” “In endurance sports, coordinative abilities ensured higher movement effectively and movement economy, whereas in sprint events, they facilitate a higher movement frequency with high explosiveness and force application. In strength dominating sport, they help in the application of short time maximum strength at the right time. In technique dominated events coordinative abilities contribute towards the better learning, stabilization with variability and automatization of the technique which determines maximum



limits for performance improvements, however in team games coordinative abilities ensured an effective use of technique tactical abilities in the continuous changing situations.”

“Coordinative abilities are primary dependent on motor control and regulation process of central nervous system. The theories of motor coordination therefore are the basis for understanding the nature of coordinative abilities. For each coordinative abilities the motor control regulation, processes and functions work together. When a particular aspect of this function is improved, then the Sportsman is in a better position to do certain group of movements. This also explains the difference between coordinative abilities motor skills. For coordinative abilities, the central regulation processes is required to function in a particular manner whereas in case of skills these processes are automatized to a great extent.” “Experts in training recently have been using the terms technique and coordinative ability together as performance factor (technique coordination or technique/coordination). Since both are interrelated and interdependent. They have in common processes of taking in and processing information for the regulation of action which enables the sportsmen to direct. and control movement according to the changing situation. Both these qualities postulate coordination of the nervous muscular system. The coordinative abilities are necessary for perception of the sports technique. But still these qualities differ in the degree of their generality, training.

In case of motor skills processes are largely automatized for the effective execution of a wide number of movements similar to each other.” “Beside motor fitness and coordinative abilities in a top class player sports skill is most important aspect. Sports Skill test are. designed to measure the basic skills used in playing of specific sports. Because of wide range of skill in most sports, a selection of most important skill becomes invariably necessary.” “The speed of learning of skill of its stability is directly depending upon the level of various coordinative abilities. Coordinative abilities are needed for maximal utilization of conditional abilities, tactical skills. and technical skills. Insufficient acquisition of coordinative abilities limits the performance especially at higher level.

On the contrary better develop coordinative abilities provide an essential base for tester and effective learning, stabilizing and variation in. technique and their successful execution in game situation and quality of performance all fundamental skills. The rhythm flow, accuracy,

amplitude etc. are improved by coordinative abilities. It helps in developing very fine extra credible skills. Infact any kind. Of movement training depends on coordinative abilities to a great extent.” “Emotional Intelligence is the ability to express and control our emotions is essential, but so is our ability to understand, interpret, and respond to the emotions of others. Imagine a world in which you. could not understand when a friend was feeling sad or when a co-worker was angry. Psychologists refer to this ability as emotional intelligence, and some experts even suggest. that it can be more important than IQ in your overall success in life. Emotional intelligence as a term didn't come into our vernacular until around 1990. Despite being a relatively.young term, interest in the concept has grown tremendously over the last 20 years.”

“An intelligence quotient (IQ) is a total score derived from several standardized tests designed to assess. human intelligence. Historically, IQ is a score obtained by dividing a person's mental age score, obtained by administering an intelligence test, by the person's chronological age, both expressed in terms of years and months. The resulting fraction is multiplied by 100 to obtain the IQ score.”

## **CONCLUSION**

The study, we can conclude that there is a significant difference in Mental Toughness between Individual Game and Team Game players wherein Team Game players possess a higher level of Mental Toughness than Individual Game Players. Also there is a significant difference between Individual Game and Team Game players in terms of two attributes of mental toughness which are Rebound ability and Confidence with Team Game players attaining higher scores in both. There was one attribute in which Individual game players showed higher level of Concentration ability than the Team Game Players but this difference was not significant. Team Game Players showed a higher ability to Handle Pressure than the Individual Game Players but this difference was not significant in this attribute and also Team Game Players showed a higher level of Motivation than the Individual Game Players but here also the difference was not significant. The literature says that in Team Games athletes are involved with teammates and spend a lot of time practicing with teammates and have more interaction with one another hence the better Rebound ability, Motivation, Confidence and Pressure Handling ability can be attributed to this particular fact wherein the teammates motivate each other and also help them to

come out of setbacks. From literature it can also be observed that in individual sports, the outcome is either winning or losing and there isn't tie, but in team sports all three results are possible hence there is less pressure on the Team Game players so we can conclude that the better pressure handling ability of Team Game players is due to this fact.

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