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IMPLICATIONS OF MOTOR FITNESS ABILITIES ON JUDO PLAYERS

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ABSTRACT
Identifying bright people at a young age is critical for judo talent development. A research concentrating on kinanthropometric measures may aid in the development of particular physical parameters that contribute to performance in various weight classes and combat techniques. Coaches and talent scouts may make better educated selections when evaluating future judo players by recognizing important anthropometric characteristics linked with performance, such as height, limb length, body composition, and strength ratios. This research may give useful insights into the physical characteristics that are most favorable in certain positions and weight categories, resulting in more accurate talent identification procedures. Every judoka has distinct physical characteristics that determine their performance potential. Trainers and coaches may acquire data on an athlete's body composition, muscle mass, flexibility, and other pertinent variables by performing a kinanthropometry research. This data allows for the creation of individualized training programs that target individual strengths and shortcomings, hence improving performance results. Coaches may maximize physical readiness, improve technique execution, and reduce the chance of injury by adapting training to an athlete's individual physical profile.

KEYWORDS: Kinanthropometric Measurements, Judo Players, judo talent development, physical characteristics

INTRODUCTION

Judo is a Japanese term that means "gentle way," and it is a sort of martial art derived from the ancient Japanese martial art of jujitsu, which means "yielding way." Dr. Jeegaro Kano, head of Tokyo's University of Education, introduced what he considered to be the greatest jujitsu methods into what is now known as judo in 1882. All of its techniques, particularly throws, stress the use of balance, leverage, and movement. Judo practitioners wear a cotton garment called a judogi, which translates as "judo uniform," and is frequently referred as simply as a gi. These uniforms are often white, although they may also be blue. They are made out of loose drawstring trousers and a quilted jacket with an obi, or belt. The clothes were designed for the sport but are currently utilized for a variety of martial sports. The range of strong throwing techniques is likely to be the most obvious aspect to someone watching judo. Grappling skills, which include different control holds, arm and joint locks, pins, and choking techniques, are also crucial to master. In practice, safety is stressed, and the sport values combat done both standing and on the ground. Judo values the concept of technique flexibility, adjusting the technique to what is needed at the time. Technique, skill, and timing are more vital than strength. This allows a tiny individual to execute the tactics efficiently on a much stronger one. This sport is becoming popular among individuals of all ages all around

the globe. It is a great method to keep in shape while also increasing self-confidence and learning self-defense. Body control, as well as rapid reflexes, balance, and efficient self-defense, are learned. Judo is also a competitive sport, having been established in the 1964 Olympics. Until 1988, when it became a women's demonstration sport, this Olympic sport was solely available to males; in 1992, it became an official Olympic medal event for women. In the United States, there are additional collegiate contests.




The system of ranks seen in many combat arts, generally denoted by various colored belts, was developed in judo. The levels reward hard effort as well as greater martial art knowledge and skill. Children under the age of 17 have different junior ranks from adults. With 10 distinct degrees of black belt, black belts are the highest rankings. The range of strong throwing techniques is likely to be the most obvious aspect to someone watching judo. Grappling skills, which include different control holds, arm and joint locks, pins, and choking techniques, are also crucial to master. Gracie JiuJitsu includes strikes and various self-defense techniques that are not appropriate for athletic tournaments but are incredibly beneficial in real-world circumstances. Many MMA competitors also have a kickboxing trainer in their training camp. These tournaments often allow for a broad variety of actions, such as kicks and punches, as well as wrestling tactics such as joint locks and throws. Samurai were warlords who studied sword combat and warfare as an art form, frequently devoting as much time to book study and spiritual training as they did to physical prowess. Ninjutsu practitioners are often considered anti-samurai owing to their more closed and secretive methods, although in terms of discipline, the two are quite comparable.

JUDO GAMES

Judo, which literally means "easy way" or "way of gentleness," was founded in Japan by the late Dr. Jeegaro Kano, a prominent educator. It is a brutal, aggressive fighting sport that is also an excellent way of self-defence. One of Judo's many benefits is its adaptability. It began in Japan, but it now has a global following and achieved Olympic status in 1964.

Japan has maintained the sport's stronghold, with over 8 million players, although the United States, Russia, and France lead the rest of the globe, with over 200,000 registered participants each. However, the terminology remain Japanese.

Judo, like other arts, needs a high degree of technical expertise to turn quickly and with great precision to stay highly alert to your partner's movements and capitalize on his weakness takes regular practice, and surely continuous practice. It may be discouraging to witness how fast a tap judoka's well honed edge gets stunted after a few days off (Soames & Fromn. 19). Judo is a life, art, and science principle. In fact, one of the aspects of Judo training is for personal cultural accomplishment. Sports may be classified as 'Randori' or free practice.

Paramedic (2002) Out of 22 factors, predicted an equation of physical and physiological characteristics of badminton players' playing ability, 25 man badminton players from Maharashtra State were chosen to function as subjects, and forward regression was used to draw out the regression. The equation included four variables: response time, height, arm length, and endurance, which accounted for 87% of the variation, whereas reaction time alone contributed 55%.

Singh (2003) A study of the physical fitness level of students from the Department of Physical Education at Punjabi University Chandigarh and Kurukshetra was carried out. He used the AAHPER Physical Fitness Test to gather data on 34 male and 27 female respondents. Kurukshetra University students were found to be superior in overall physical fitness level, however ladies from Punjab University performed much better than Kurukshetra in speed and agility components. However, no substantial variation in total physical fitness was found between the'subjects of both institutions.

Sharma (2004) carried out a research to develop and standardize motor fitness for Delhi's primary school pupils. His sample includes 500 boys and girls. The research was divided into two stages. In the first phase, he created a motor fitness battery for females using factor analysis techniques, which included (i) softball throw, (ii) toe touching, (iii) double foot balancing, (iv) 50 Mt. Dash, and (v) 800 Mt. run/walk for girls.

The pace of the game is dictated by the ability of the Judo Players, since it incorporates a remarkable variety of talents and attributes, including quickness of foot and speed of hand, as well as balance, coordination, strength, power, stamina, and endurance. In Judo, quick tactical decisions, as well as other traits like as patience, focus, serenity, and managing opponent pressure, are required. Judo players are excellent because of their technical proficiency, deceit, tactical ability, fitness, and positive mental attitude. The performance of such talents requires a high level of motor ability, physical fitness, and mental fortitude.

Coordination of all of these factors provides the foundation of coordinative skills, which are considered as components of motor talents alongside strength endurance, speed, flexibility, ability, and response time. Speed, ability, balance, coordination, power, and response time are all characteristics of motor fitness, according to Henry Franklin (1980).

MOTOR FITNESS/MOTOR ABILITIES

Agility, coordination, strength, and flexibility are all genetically established qualities that impact movement performance. Adults' abilities are persistent and, as a result, difficult to modify. Abilities are distinct from skills in that skills are learnt, while abilities are the result

of both learning and hereditary variables. 1964, Fleishman. Skills are a degree of competency on a given motor activity, while abilities are attributes that determine an individual's capacity to become skilled when learning a new motor task. A skilled race car driver, for example, must have rate control, manual dexterity, stamina, control precision, and reaction time; a typist must have aiming and finger dexterity; a surgeon must have arm-hand steadiness and multilimb coordination; and a figure skater performing the triple axel must have explosive strength, dynamic flexibility, gross body coordination, and multilimb coordination.

Biological and physiological aspects influence an individual's talents. 1964, Fleishman. The makeup of a person's muscle tissue will undoubtedly influence his physical competence motor skills such as strength, endurance, and flexibility.

Physiological deficiencies in rod and cone development would also impair an individual's perceptual-motor skills, possibly decreasing response time. Environmental variables can have an impact on abilities. Children who get formal schooling, for example, will continue to improve their linguistic and reasoning skills throughout their academic years, just as children who engage in physical fitness or sport-related programs will grow their motor skills. The pace at which talents develop varies during infancy and adolescence, both within and across people. This is mostly due to changes in growth and maturation. Between the ages of 18 and 22 years, the pace of growth plateaus and remains generally steady into adulthood. **Fleishman, 1964.**

Motor fitness has been described as the readiness or preparation for performance with large muscular activity necessary without excessive tiredness (Barrow). It encompasses an individual's ability to move effectively, with power and force, for a fair period of time. Motor fitness is merely a subset of physical activities that need at least average ability in a broad range of fundamentals. Motor activity, balance, flexibility, and agility are all important. In each game, power and action are sufficient. In swimming, for example, it will become the capacity to swim as well as the ability to rescue lives. Running, leaping, climbing, crawling, and throwing are the basic talents that make up fundamental, and all of them are in some way connected to complete fitness and cannot be divided into divisible portions for growth.

The Components of Fitness

Strength, speed, stamina, and flexibility are the four essential components of basic fitness. Exercise scientists, on the other hand, have identified nine components that compose the concept of fitness:

1. Strength - the ability of muscles to produce force by contracting against opposition (for example, holding or restraining an item or person).
2. Power is the capacity to rapidly exert maximal muscular contraction in an intense burst of actions. Strength and speed are the two components of power. (For example, leaping or a sprint start)
3. Agility - the capacity to produce a sequence of explosive power movements in fast succession in opposing directions (for example, zigzag running or cutting motions).
4. Balance - the capacity to manage the position of the body when stationary (e.g., a handstand) or moving (e.g., a gymnastics act).

5. Flexibility - the capacity to move through a wide range of motion without being hampered by extra tissue, such as fat or muscle (for example, doing a leg split).
6. Local Muscle Endurance - the capacity of a single muscle to execute prolonged effort (for example, rowing or cycling).
7. Cardiovascular Endurance - the capacity of the heart to transport blood to working muscles and their ability to utilise it (e.g., long distance running).
8. Endurance Strength - a muscle's capacity to produce a maximal contraction time after time (for example, continuous explosive rebounding during an entire basketball game).
9. Coordination- the capacity to combine the aforementioned components in order to create successful movement.

ANTHROPOMETRY

Anthropometric measures are comparisons of bodily measurements. Nutritional evaluations make use of anthropometric measures. Longitude, height, weight, weight-for-length, and head circumference are used to examine growth and development in newborns, children, and adolescents (length is used in infants and toddlers rather than height since they are unable to stand). Individual metrics on a growth chart are often compared to reference standards. Adult anthropometric measures typically comprise height, weight, body mass index (BMI), waist-to-hip ratio, and body fat percentage. These measurements are then compared to reference standards to determine weight status and illness risk. To be valid, anthropometric measurements need accurate measuring procedures. Delores C. S. James, 2017.

Anthropometric measures have been used in physical education from the beginning of physical activities. It is the science of body component and proportion measurements. The topic matter in this field involves lengths, diameters, circumference, body composition, somatotype body, and so on. According to Charles (1983), power and strength of leg muscles, stomach, back, and muscles of arm shoulders and shoulder region play a crucial part in the performance of the current research, weight, arm length, leg length, body weight, age, and so on. Several writers advocated for different aspects of fitness connected to our physical measurements. According to certain research, Judo players need a lot of mobility and flexibility in their bodies to perform a lot of turning and twisting in the game.

ACE Body Fat Norms for Men

- Essential Fat: 2-5%
- Athletes: 6-13%
- Fitness: 14-17%
- Acceptable: 18-24%
- Obese: >25%

ACE Body Fat Norms for Women

- Essential Fat: 10-13%
- Athletes: 14-20%
- Fitness: 21-24%
- Acceptable: 25-31%
- Obese: >32%

CONCLUSION

The current research was carried out to determine the association between anthropometric factors and motor fitness of Judo via its abilities at various levels of participation. The research included 90 male and female Haryana Judo players of various levels of engagement aged 18-28 years. Haryana is divided into three categories: first level (state/inter-college), second level (intervarsity/national), and third level (international). All of the subjects had completed more than 5 years of training. During data collection, these players were still active performers. The Standing Committee conducted a feasibility study to determine which factors might be investigated, taking into account the availability of equipment, the acceptability of the subjects, and the legitimate time that could be given to testing, as well as the supervisor's and other experts' opinions. As anthropometric and motor ability variables, height, weight, leg length, arm length, chest circumference, belly circumference, upper arm circumference, forearm circumference, calf circumference, thigh circumference, body fat, and motor ability/fitness were chosen.

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