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## SPORTS ACTIVITIES AND ITS IMPORTANCE IN DAILY LIFE

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**Abstract:** *Physical exercises in the form of sports-recreative and competitive, are the most potent factors in keeping in individual physically healthy and mentally sharp. Sports, perhaps, may be viewed as that aspect of human activity which essentially strengthens the integration of body and mind. Infact, the field of sports activity is very vast and the boundaries of which extend from the pranks of a child to highly competitive Olympic events. It indicates that there is an interaction of the socialization process and training methods that take place within sports activities where specific values, associated with sports are emphasized and also the selectivity process at the entry into the athletic field. Betts (1974) cited the importance of sports activities and benefits competitions in the development of character, reduction of rowdiness and the healthy development of physical and mental health.*

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Berger (1984a), (1984b), Sharkey (1984) and Humphrey (1986) have pointed out that exercise or at least jogging has been associated with short term decreases in anxiety and depression for members of the normal population. They further added that because of its psychological and physical benefits, jogging seems to be the ideal stress reduction technique for members of non-clinical population also. It is felt that besides other personal characteristics, body structure, physical fitness and physiological factors are definite predictors of the degree of efficiency and the level of success an athlete attains. Studies have also shown that certain motor abilities, physical fitness, physiological and psychological factors have definite advantage over other factors in certain sports for higher achievements. It is also observed that every vigorous game or sports requires certain qualities of individual taking part in competitive sports. In general, these qualities are body size (weight and height), speed, agility, co-ordination, flexibility, muscles strength, the ability of the muscles to pull and push, squeeze or press. Some of these factors are inherited and some can be developed through vigorous physical exercises.

Most of the theories and views available in literature reflect that whatever may be an individual's motive and need or desire, in the end, one aspires for or is anxious for maximum success, highest performance, recognition and self-gratification. Thereby, it is noted that within every individual, there exists at one time or another time anxiety (desire) to reach upward, to surpass others, to become stronger, better and more courageous in both performance and recognition. The sense of maximum achievement is largely responsible for the development of such tendencies among the individuals. If such tendencies and qualities



of an individual are encouraged and developed to the optimum level, his performance could be improved, and there could be no two opinions that better systematic programmes and environments can do a lot in this regard.

Recently some attempts have been made in the field of sports and games to find out whether a particular sports event requires some special attributes in an individual to become proficient in it. An analysis into the requirements for each sports events has led to the idea that some physical, physiological, psychological and sociological factors are the most important determinants directing the interest and energies of the individual to focus his attention on that activity only which suits him anatomically, often his preliminary training in motor skills. Hirata (1966), Degary et. al. (1974) conducted studies on Olympic athletes have revealed that various sports events differ from one another not only in their skill pattern, organization and equipment requirement but also in the requirement of physical, physiological and psychological set up of athletes participating in it. Therefore, participants in different games are expected to possess or require different characteristics to be successful in that particular event.

Cureton (1951), Tanner (1964), Carter (1970), Sinning and Lindberg (1972), Degary, Levine and Carter, (1974), Fall and Humphery, (1978), studied on the athletes of different sports have demonstrated that body size and composition are important factors in distinguishing athletes from the other sports. Similarly, several studies, conducted by Havel, (1958), Kane and Callegan, (1965), Kroll, (1967), Singer (1968), Straub (1971), Darden (1972), Giri (1977), Gurpreet, (1984), Harjinder, (1990), Parveen, (1991), also stated that besides the physical qualities they also stressed the importance of mental make up in sports. Their argument is that determination drive, nerve and the killer instinct, are the qualities that are expected to be found extraordinarily in champions. The body size and composition do not detect these qualities. Hence, these studies have shown that athletes of one sports differ from the athletes of other sports and the non-athletes in their personality characteristics and adjustment.

Equally important and worth quoting are the studies done by the venerendo and Rulli, (1964), Saltin and Astrand ( 1967), Ekblon and harmansen, (1968), daniels, (1974), Shaver, (1980) show that champion athletes depending upon their specific sprots, varied considerably in physiological attributes.



According to Rees (1960), the various attributes of constitution are obviously interrelated and perhaps interdependent reflecting common factors for structural, functional and behavioural manifestations. The organismic theory Kane (1972) also emphasizes the interdependence and inter-action of various attributes of constitution reflecting common factors, for structural, functional and behavioural manifestations. Similarly, in the research of the athlete's biotype, argue Lacave (1977), the body constitution (shape) must be associated to the functional, and physiological with the aim of defining for each sports discipline, the ideal type for champion, whose profile does not necessarily coincide with the athletics consultations of various sports activities. This implies that all the characteristics measured together should be given major consideration in defining for each sports discipline, the ideal type for champion.

Johnson (1960) opined that it is commonly observed and assumed that specific group of athletics have some behavioural characteristics which distinguish among themselves and also non athletes. Maglothen (1960) in activities are characterized by their codes of ethics and hence, require or develop different characteristics among workers. In addition to the above, the research work of Freud and the neo-Freudians have focussed a good deal of attention upon childhood experience and participation in life activities which develop certain patterns of characteristics both in childhood and later life. These views and researches high lights the assumption that participants in various sports activities are expected to have different from non participants. Sohmbal (1981) states that as training structure in each sports is different, therefore the performance capacity consisting various psychometer and physiological abilities, capacities will also be different. So, this difference becomes clear from the nature and method of participation in every physical education, unique body movement and various situation, leading to development of different physical, physiological and other personal characteristics among participations in different sports activities, so it is regarded as a physically whole-some socially regarding activity which has grown in popularity and participation in recent years due to the expanded multiactivity programme of sports and presents new experiences to the participants. It is felt that women gymnastic is highly competitive sports discipline. The requirements of the performance in the sports discipline. The requirements of the interacted combination of complicated movements requiring high degree of strength, speed, flexibility and co-ordinative abilities.



According to Salmela (1982) a high degree of Physical, physiological and psychological abilities are required for advance performance in gymnastics. Flexibilities and co-ordinative abilities play paramount role in women gymnastics.

According to Matveyev (1981) co-ordination abilities are fundamental for learning, reflexing and stabilizing the technique of innumerable elements on various apparatus in women gymnastics. Harre (1982) opined that gymnastic is one of the beautiful support disciplines and has been designated as a technical sports. One of the most evident dimensions of gymnastic performance is spectacular twisting, somersaulting and maintenance of body in controlled position. Dutta (1977) observed that gymnastic lays a real claim to the structure of the body because it develops chiefly skills and strength. The load on due muscles and joints is great, often, not in very physiological positions. (e.g. exercises in back hand). Dinhiman and Barrow (1976) pointed out that gymnastic makes greater contributions to the physical development of the arms and legs than to that of other parts of the body. it also seems to develop a higher abilities to score well on physical fitness and motor ability tests.

According to Maycock (1969), gymnastic has special meaning as a sports. The movements in this sports are fundamentally big muscle movements and develop greatly muscle groups in the arms, shoulders, chest and abdomen. Besides building strenght and power, Gymnastic also contributes to other factor of physical fitness, such as agility, flexibility, co-ordination and balance. It is a common notion that gymnastic is the mother of all games. In other words all other games have their birth from this game and being the basis of all other games. In European countries, more emphasis is given to this game since from childhood. This is also considered best suited exercise for the development of various elements of fitness.

It is available in the literature that gymnastic as a sports owns its organise to the ancient Greece. The word "Gymnastic" has been derived from the greek word "Gymnazeim" means exercise in naked Body. Plato in his book the Republic wrote, " No education is worth anything unless music and gymnastic form a parts of it". No sport is so closely linked with the all round development of man as gymnastics. Gymnastics was included among the nine sports of the first modern Olympic Games held in 1896 at Athens.

Gymnastics is a short duration activity. The main sources of energy supplied is anaerobic. Obviously, in gymnastics the energy is released from phosphogen break down and



glycolysis. The Maximum time requires for an exercise in competition in men section on floor is 60 seconds with a margin of 10 seconds more or less. A gymnast takes approximately 30 seconds for performing an exercise on each of the four apparatuses i.e. Parallel Bars, Horizontal Bars, side Horse and Roman Rings. It take approximately 5 seconds to complete a vault on horse.

Though gymnastics is a technical sport in which performance is evaluated on the basis of mode of execution of the technique and movement, yet a high degree of conditional abilities facilitate the learning, practicing and mastering the complicated technical skill of complex nature and their combination on various gymnastics apparatus. According to Fulenshima (1980) "To excel in Gymnastic one must possess sufficient physical conditioning to learn the fast progressing gymnastic movements without this one may not acquire various skills and may learn incorrect movement".

Body composition also plays an important role in achieving top performance in gymnastics. Lesser the amount of body fat, better will be the amount of relative strength. Mostly the gymnastic movements on floor as well as on different apparatus are performed against the gravity in which a gymnast has to lift his own body weight, executing gymnastic elements. Therefore, to achieve top performance a gymnast must be stronger as well as flexible.

There is no denying the fact that in India the sports movement started much later than in many advance countries. India started with a poor base in gymnastics while others have already achieved a high level of performance. Indian gymnastics received some recognition only in the IX Asian Games, in our society. Even now the countries like China, U.K., U.S.A., U.S.S.R., and Japan. There are certain reasons for such a low level of performance in Gymnastics in India. In countries mentioned above they have their own set general and specific standard of physical and physiological abilities for different sports. These standards are helpful for the selection of their National teams and preparing the sportsmen for higher competition by rectifying the deficiencies felt by means of scientific evaluation.

In India such type of standards are not available especially in the field of gymnastics. It is therefore, necessary that during the selection of gymnasts for higher competitions, weightage should be given to their physical and physiological parameters, which are the basic requirement for building up of motor abilities for high performance. Unfortunately, in



India, the emphasis during selection of the Gymnasts have been, so far, only on the skill and technical level, without much consideration for physical and physiological status of the gymnast. In developed countries, the evaluation of physical condition is receiving much importance not only to assist in selection of sportsmen but also for planning, control and evaluation of their training programme.

Logan(1961), has expressed that strength is necessary for the stability of joints particularly for the extremities. Harre(1979), quoted that speed is the ability to react quickly and execute motor movements, under given conditions. In gymnastics, the pure speed is mainly required for the vaulting horse. Faster and smooth approach run play a decisive role in the execution of different vaults.

Cardio-respiratory endurance is an important element of physical conditioning especially when a gymnast changes a training method from doing single element training or partial exercise training to complete exercise training. According to Fukashina(1981) if a gymnast obtains this endurance in total condition, she needs only to concentrate on technique during performance of an exercise, instead of struggling through to reach the dismount.

Basco (1975) is of the opinion that champion gymnasts when compared with poor performance have lower heart rate and blood pressure and since this seems to be one of the outcomes of cardiovascular fitness induced by interval training. Interval training is done by outstanding gymnasts as they do service of routines in work out.

Flexibility is the ability to perform movements with a large amplitudes, "Flexibility is a prime prerequisite of a qualitatively and quantitatively good execution of movements". Lack of flexibility leads to injuries and various faults in execution. It helps in generating more force which makes the execution of complicated gymnastics skills easier. The wider amplitude leads to grace and elegance which ultimately leads to virtuosity which is an important aspect of gymnastics performance. Execution of some of the elements, such as split sittings, walk overs etc. depends purely on flexibility. It has also been revealed that flexibility contributes to power by increasing the distance over which force could be applied, when a gymnast attempts to improve flexibility by resistance and slow sustained methods.

Gurdial Singh and Debnath Kalpana(1989) from a study concluded that there is significant contribution of arms, shoulder, abdominal and leg strength to competitive performance in men gymnastics. Competitive performance in men gymnastics can be predicated with 75%



accuracy with the help of six strength variables i.e. standing Broad Jump, sargent jump, arm strength, hand stand, dips on parallel bars, and rope climbing.

Kalpana (1983) found that competitive gymnastics, which has gained tremendous popularity in recent years, is a highly technical sports discipline. The requirement of the performance in the sports is the execution of intricate combinations of complicated movements requiring high degree of strength, flexibility, speed, endurance and co-ordinative abilities and visually artistic sports. It consists of infinite variety of movements on various pieces of apparatus (Balancing Beam, Floor Exercises, Uneven Parallel Bars and Vaulting Horse).

Salmela (1980) is of the opinion that though gymnastics is a technical sport in which performance is evaluated on the basis of the technique of different complicated elements on various apparatus yet, performance of these technical elements depends to a large extent on the limit of motor abilities. A high level of physical, physiological and psychological abilities are required for advance performance in Gymnastics. In another study Salmela (1982) found that physical fitness is inseparable part of sports performance and achievement. World's top most nations in the field of sports are very much conscious of this fact and concentrate on the development of the basic and specific physical fitness, its components and related aspects.

According to Cumming (1967), explosive strength and muscular strength are required for a gymnast to perform on various apparatus. Hence, Gymnasts at High Level are found to be leanest, strongest and most flexible of all the athletes of all the components of motor fitness i.e. the athletes of all the components of motor fitness i.e. the strength, power speed, flexibility, endurance and balance, the most important single component is strength. being required different body movements in gymnastics, hence expected development of different characteristics, physical, physiological, psychological, sociological and physical motor fitness. So, it appears from the literature that physical (Motor) fitness and its components are important factors that contribute towards high performance in gymnastics. But most of the research work has been done in foreign countries at male population. In the light of above paragraph, the present investigator has decided to relate motor fitness and its components to performance of female gymnasts in gymnastics.

Conceptualization of motor abilities and motor fitness are the two important ingredients of successful performance in any game or athletic events. Gymnastics is no exception. This





explains why motor fitness, in the present investigation, were taken as predictor variables in determining performance in gymnastics. Before dwelling on the importance of the study, it becomes imperative, therefore, that an adequate conceptualization of the terms 'motor fitness' and 'motor abilities' is arrived at. This section is devoted to this end.

## **MOTOR ABILITIES**

There is a general agreement among authorities that general motor ability or specific motor abilities play a decisive role in determining one's level of performance in a wide range of motor activities. But some divergence and varying emphasis is there regarding the nature and definition of motor ability, whether general or specific. For developing a meaningful and comprehensive picture of motor abilities, it would be pertinent to make a sample survey of some of the available definitions. It would help us in formulating and arriving at an acceptable and agreed concept of the term.

Scott (1959), conceptualizes the term motor ability, as used, to mean achievement in basic motor skill or it may be interpreted as a more general term combining the concept of motor educational ability and achievement.

According to Backert (1974), the ability of an individual to perform specific motor patterns which commonly occur with acceptable physical activities of our culture, is another aspect of co-ordination which has been labelled motor ability.

In the words of Johnson and Nelson (1982), it is 'one's acquire and innate ability to display fundamental motor skills rather than highly specialised sports events.

Barrow and McGee (1964), further elaborate, the above definition when they define motor ability as 'the present acquired and innate ability to perform motor skills of a general or fundamental nature, exclusive of highly specialised sports or gymnastic techniques. It is one's level in wide range of activities.

Several experts in the field have defined general motor ability in terms of its elements or components.

According to Coron (1929), motor ability is composed of the following seven components:

1. Arm-shoulders co-ordination,
2. Arm-shoulder girdle strength,
3. Hand-eye, foot-eye and arm-eye co-ordination, Jumping or leg strength and flexibility,



4. Jumping or leg strength and flexibility,
5. Endurance or sustained effort,
6. Body co-ordination, agility and control,
7. Speed of legs with co-ordination of body,

Larson (1941) defined general motor ability as the ability of the individual in the elements which underline motor performance, such as muscular strength, muscular power, muscular endurance, co-ordination, agility and balance.

Barrow (1954) used a jury of expert physical educationists who defined general motor ability as composed of the following eight factors: (1) Arm and shoulder co-ordination, (2) Flexibility, (3) Power, (4) hand-eye and foot-eye co-ordination, (5) speed, (6) strength, (7) balance and (8) agility.

According to Clarke (1987) general motor ability has been considered as one and level of ability in a wide range of activities. It has been thought of as an integrated composite of such individual traits as strength, endurance, power, speed, agility, balance, reaction time, and co-ordination traits underlying performance in many motor complexes.

In a review of research studies in the area, Battinelli (1984) suggested that the general components of motor ability were muscular strength, muscular endurance, cardiovascular endurance, power, speed, balance, flexibility and agility.

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