



A COMPARISON OF PHYSICAL FITNESS AND MENTAL HEALTH OF TEAM GAMES AND INDIVIDUAL GAMES PLAYERS

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ABSTRACT

*The objective of the study was to compare Physical fitness and mental health of female players of Team games and Individual games from Ahmednagar District Sports Zone under Savitribai Phule Pune University on the selected physical fitness variables and mental health. A group of 210 female players A (Team games players=141) and B (Individual games players: N=69) of age group 18-25 years were selected from the Ahmednagar District under Savitribai Phule Pune University, Pune. The study was limited to the physical fitness variables i.e. cardio-vascular endurance, muscular strength, muscular endurance, flexibility and body mass index. It was hypothesized that there may be significant differences with regard to selected physical fitness variables among team games and individual games players. The data was collected from inter zonal sports competition organized by Savitribai Phule Pune University and analyzed by using an independent samples t-test. The level of $p \leq 0.05$ was considered significant. An independent samples t-test revealed that individual games players had significantly higher in cardio-vascular endurance, muscular strength, muscular endurance, flexibility, body mass index and mental health ($p < 0.05$) than team games players. **Keywords:** Physical fitness, mental health, individual games, team games, players.*

INTRODUCTION

Physical Fitness: - Physical fitness is a state of well-being that comprises skill and health-related components. Fitness is a condition in which an individual has sufficient energy to avoid fatigue and enjoy life. It is necessary for elderly people to maintain and improve their physical fitness in order to satisfy healthy, high quality of daily life (Tanaka et al., 2004).

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Skill-related physical fitness refers to an individual's athletic ability in sports such as tennis and encompasses skill-related attributes like dynamic balance, power, speed and agility; the health-related aspect is a measure of cardiovascular endurance, muscle strength, endurance and flexibility and body composition (Hopkins & Walker, 1988). Physical fitness is measured by functional tests that are specific and usually normative-based, rather than criterion-based, thereby leaving unanswered as to how much of a specific fitness factor (e.g. muscular endurance) is required for a good quality of life (Chia et al., 2007). There are numerous factors which are responsible for the performance of sportsmen. The physique and body composition including the size, shape and form are known to play a significant role in this regard (Sodhi & Sidhu, 1984). The performance of a sportsman in any game or event also depends on physical fitness. The physical fitness or condition is the sum total of five motor abilities namely muscular strength, agility, power, speed and cardiovascular endurance. Therefore, the sports performance in all sports depends to great extent on these abilities. Improvement and maintenance of physical fitness is the most important aim of sports training (Uppal, 1980). Muscular power, often referred to as explosive power, is a combination of speed and strength which is important in vigorous performance since it determines how hard a person can hit, jump and push etc. Agility is the ability to change the direction of body or its parts rapidly which is dependent on strength, reaction time, speed of movement and muscular coordination.

Mental Health: -

Sport has a competitive aspect, which is getting stronger and stronger day by day, with serious consequent impact on the mental well-being of the athletes. Sportspersons are characterized by a high level of physical and psychic tension, which adversely tells upon not only on the performance of athletes but also on their mental wellbeing. The skill and physical condition play major role, but the physiological factors and games experience cannot be overlooked. Perhaps, the most important factor that causes a very serious destabilizing Effect on the elite athletes and their health- both physical and mental- is a long- drawn or persistent anxiety coupled with emotional tension- an inevitable result of internal regulators of behavior such as personality factors (an inborn high sensitivity to emotional stresses) as well as the external ones like stresses and emotional responses to training systems and interpersonal relationships. The irony is that these factors remain out of focus during training periods so that the athletes suffer pangs of mental ill- health at crucial time. The competition fever, variety of unfounded fears and apprehensions, free floating anxieties (born out of inadequate personal preparation, readiness, equipment change, play environment etc.), emotional upsets etc., cause sleepless, hallucinations, strange dreams, psychic and somatic tension, loss of confidence, over arousal and several kinds of sensory- perceptual disturbances in many athletes.



Individual and Team sports: -

While there are benefits to both team and individual sports they differ vastly. In team sports success or failure in competition depends on many variables.

No matter your talent level in team sports you must rely on your teammates. Likewise, team sports promote virtue of working together. Without a group of players performing simultaneously complex motions pointed toward the same goal, the team performance will falter.

The teammates must work together to achieve success as a result. Everyone has an assignment and is expected to execute their task effectively. Any failure of this teamwork results in an unsuccessful play. As we all know, there is no 'I' in team.

On the other end of sport lies individual competition. Vastly different from team sport individual sport requires a different set of dynamics that govern success in an individual sport. You are your competition. Every competitive opportunity is a chance to beat your personal best. To achieve these results, you need a high amount of self-reliance, discipline focus and passion. With individual sport, you can't hide behind teammates. Success and failure are yours alone to bear. Where you can rely on a teammate in team sports, you must rely on yourself in individual sport.

While individual sports promote a higher amount of discipline, research has indicated that people find team sports more enjoyable.

Methodology:-

For this study 141 female players of team games i.e. (Kho-Kho, Kabaddi, Handball, Basketball, Football, Volleyball, Hockey, Cricket, Softball and Netball) and 69 players of individual games (Archery, Power-lifting, Boxing, Judo, Wrestling, Badminton, Table Tennis, Weight- lifting, Shooting and Cycling) of Ahmednagar District sports zone which were participated in inter zonal sports competitions under Savitribai Phule Pune University has been selected as a sample. All the players were regularly practicing and competing in their respective sports competition. The following Physical fitness variables cardio-vascular endurance, muscular strength, muscular endurance and flexibility were selected. 12 minutes run and walk test was used to measure cardio-vascular endurance. The total distance covered in 12 minutes by the subject measure the cardio-vascular endurance. The modified push-ups test was used to measure muscular strength. The score of the test is the number of modified

push-ups performed by the subject in 1 minute. The sit-ups test was used to measure muscular endurance. The score of the test is the number of sit-ups performed by the subject in 1 minute. The Sit and reach test was used to measure flexibility. The score of the test is the distance measured in cm by sit-ups test performed by the subject. Body Mass Index is the ratio of body weight (measured in kilogram) and the square of the height (measured in meters) thus, $BMI = \frac{\text{Body weight (kg)}}{\text{Height (M)}^2}$ Body Mass Index test is used to measure Body composition of the subject. Agashe and Helode's Mental Health questionnaire was used as a test tool for the present study. The investigator was given the questionnaire contains thirty six 'Yes' or 'No' questions of which 12 questions on each of the following factors i.e. Self-acceptance, Ego strength and philosophies of human nature. Out of 12 questions for each factor, 6 questions were positively worded where 6 questions are negatively worded. The instructor given an instruction to the all participating female players that all the questions are compulsory and want to complete with their own answers. The completed answer sheet was treated with the norms of Mental Health Questionnaire and then gone for calculations.

Data Collection:-

The data was collected with standardized procedure by selected physical fitness tests by AAPHER youth physical fitness test and Mental health by Mental health inventory by Agashe and Helode's. All the tests were administered and explained to the players. To find out the difference between team and individual games players from Ahmednagar District Sports Zone under Savitribai Phule Pune University on their selected physical fitness variables and mental health. The data were collected and analyzed by using descriptive statistics and 't' test.

Table No. 14

Mean Standard deviation and t- value of Physical Fitness of Team games and Individual games players of Ahmednagar District Sports Zone

Variables	Team games (N=141)		Individual games (N=69)		t value
	Mean	SD	Mean	SD	
Cardio vascular endurance	1681.99	329.66	1786.52	335.59	2.15*
Muscular Strength	27.28	6.02	31.64	5.60	5.04*
Muscular Endurance	29.31	6.07	32.33	7.74	2.47*
Flexibility	38.68	6.82	40.05	6.94	1.35*
Body Mass Index	24.77	3.42	23.54	3.57	2.39*
Mental Health	21.76	3.76	23.88	4.83	3.21*

Significant at $*p < 0.05$.

Above table shows Descriptive statistics for Physical Fitness and Mental Health of Team games and Individual games players from Ahmednagar District Sports Zone. The mean of Cardio-Vascular Endurance of Team games players is 1681.99 (± 329.66) whereas the mean of Individual games players is 1786.52 (± 335.59). The mean of Muscular Strength of Team games players is 27.28 (± 6.02) whereas the mean of Individual games players is 31.64 (± 5.60). The mean of Muscular Endurance of Team games players is 29.31 (± 6.07) whereas the mean of Individual games players is 32.33 (± 7.74). The mean of Flexibility of Team games players is 38.68 (± 6.82) whereas the mean of Individual games players is 40.05 (± 6.94). The mean of Body Mass Index of Team games players is 24.77 (± 3.42) whereas the mean of Individual games players is 23.54 (± 3.57). The mean of Mental Health of Team games players is 21.76 (± 3.76) whereas the mean of Individual games players is 23.88 (± 4.83). In case of cardio vascular endurance (2.15*), muscular strength (5.04*), muscular endurance (2.47*), flexibility (1.35**), body mass index (2.39*) and mental health (3.21*) respectively. The value of t-test Significant at $p < 0.01$. table shows the comparison of mean of selected physical fitness variables of Team and Individual games players of Ahmednagar District Sports zone. It is evident from the data that there was significant difference exists between the team games and individual games players in the physical fitness variables. The H_1 (research hypothesis) is accepted at $p < 0.05$ level of significance.

Results:-

The present study conducted on the Comparison of Physical Fitness and Mental health of team games and Individual games players. The main objective of this study is to find out Physical fitness and mental health of Team games and Individual games players. For this study convenience sampling method was used to select the sample from the available population. The players participated in Inter Zonal sports competition in selected Team games ($n=141$) (Kho-kho, Kabaddi, Handball, Basketball, Football, Volleyball, Hockey, Cricket, Softball and Netball) & selected Individual games ($n=69$) (Archery, Power-lifting, Boxing, Judo, Wrestling, Badminton, Table Tennis, Weight- lifting, Shooting and Cycling) organized by Savitribai Phule Pune University. The total number of players participated in selected Teams games and Individual games in Inter zonal competitions organized by Savitribai Phule Pune University from Ahmednagar District was used as sample for the research. Finding of the study shows that there was significant difference between the team games and individual games players. It was hypothesized that there may be significant difference with regard to selected Physical Fitness variables and mental health among Team games and Individual games players. The difference between the groups was tested by Independent sample t test. It was found that Individual Games players have a better Cardio



Vascular Endurance, Muscular Strength, Muscular Endurance, Flexibility and Body Mass Index than Team Games players. This is clearly in accordance to previous research like (Gaurav. V, Singh. A, Singh. S, 2011) in which by independent samples t-test it was revealed that individual games athletes had significantly higher muscular strength, agility, power, speed and cardiovascular endurance ($p \leq 0.01$) than team games athletes.

In Present study it was found that Individual Games players have a better mental health than Team Games players. This is in conflict of the result by study (Shamad. Biglr.et.al. 2015) where they found that mental toughness and reliability in team sports is significantly higher than mental toughness of individual sports. The different result in studies may also be due to the fact that individual players have a better mental health as they compete as an individual, have adapted to situations to depend on themselves, they seek pressure situations and challenges and so are mentally strong. The results of Gordon (2012) showed that there is no difference between team and individual athletes in mental toughness.

CONCLUSION

In this study it was found that there were significant differences between Team games and Individual games players. Individual games players have a better Cardio Vascular Endurance, Muscular Strength, Muscular Endurance, Flexibility, Body Mass Index and Mental Health than Team games players. From the above findings and discussion we can conclude following conclusion that Physical Fitness and Mental Health of Individual games players are better than Team games players. The information from this study may be helpful for the coaches in their selection and also provide guidelines for coaching camps for team games and individual games players.

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