# PHYSICAL FITNESS LEVEL OF ATHLETES IN COLLEGES AFFILIATED TO SOLAPUR UNIVERSITY, SOLAPUR

**Dr. Dhondage S. R.**

*Director of Physical Education and Sports,*

*Bhai Kishanrao Deshmukh Mahavidyalay, Chakur.*

**Shri. Manukar S. D.**

*Director of Physical Education and Sports,*

*D.A.V. Velankar College of Commerce, Solapur.*

## Abstact

*There is close relation of physical fitness and sport performance of athletes in various sport events. The athletes belonging to small villages or economically backward region fails to maintain good physique do o various reasons such as low income, unavailability of sport facilities, lack of proper training etc. following paper is related to physical fitness of athletes in various colleges in Solapur District*

***Key words:*** *Physical fitness, athletes, sports, performance, fitness level*

## INTRODUCTION:

Solapur district is well known for International sports. The district belongs so many international athletes like Vandana Shanbhg, Bhageshri Bille, Kashinath Aswale, International cricketer Polly Umrigar, Angha Deshpande etc. Solapur University was come into existence in 1st August 2004. Since the establishment of Solapur University, no individual athlete or team sports have made remarkable achievement in national university games. Reasons may vary but they should be taken into serious consideration and solved in a disciplinary manner. The athletes should great proper training for improving their fitness level. The paper highlights the fitness level of athletes in various colleges affiliated to Solapur University, Solapur

## OBJECTIVES OF THE STUDY

1. To study the Physical Fitness of Athletes in Solapur district.

2. To suggest the remedies for improving Fitness of Athletes in study area.

**PHYSICAL FITNESS**

During the last century the concept of physical fitness has undergone major changes. The physical fitness is a sum of five motor abilities that are speed, strength, endurance, flexibility and co-coordinative abilities. These five above mentioned motor abilities and their complex forms are the basic requirements for human motor actions. Motor fitness has basically two aspects that of Performance related fitness and Health related. Performance related fitness basically shows the athletic ability, where as the health related fitness relates to the functional health and well being.

**Components of Physical Fitness**

| Primary Components of Physical Fitness | Secondary Components of Fitness |
|---|---|
| • Cardio respiratory Fitness | ○ Balance |
| • Muscular Endurance | ○ Coordination |
| • Muscular Strength | ○ Agility |
| • Flexibility | ○ Power |
| • Body Composition | ○ Speed |

**METHODOLOGY:**

The present study is dependent basically on the primary and secondary data collected by the researcher. The primary data was collected from the selected respondents i.e. athletes of Solapur university. Researcher prepared a pre-tested questionnaire for the collection of primary data. Secondary data relevant to present study was collected from various sources namely Solapur University, Solapur, annual reports of various Colleges, Sport Journals, books, Internet, libraries, NGOs, magazines, newspapers, government officials, economic surveys, census

Survey etc.

**SAMPLE SELECTION**:

The researcher studied the physical fitness level and Socio economic status of the athletes of the colleges affiliated to Solapur University, Solapur (Maharashtra). Researcher selected the athletes who participated in Solapur University Intercollegiate Athletics meets, Ashwamedh Inter University sports Festival and National university games Athletics meet for the academic years 2010-2011 to 2012-2013(Three years) with a total sample size of 200 (200 athletes of affiliated colleges of Solapur university, Solapur).

**ANALYSIS AND INTERPRETAION OF DATA:**

**PHYSICAL FITNESS TESTS**

The following physical fitness tests were conducted by researcher.

**Body Mass Index**

**Table 1.1: Body Mass Index of the Respondents**

| Body Mass Index | | | | | |
|---|---|---|---|---|---|
| **Sr. No.** | **Rating** | **Respondents** | | | |
| | | **Male** | **%** | **Female** | **%** |
| 1 | Under Weight | 49 | 32.67 | 10 | 20 |
| 2 | Normal Weight | 92 | 61.33 | 30 | 60 |
| 3 | Over Weight | 8 | 5.33 | 8 | 16 |
| 4 | Obesity | 1 | 0.67 | 2 | 4 |
| **Total** | | **150** | **100** | **50** | **100** |

From the total respondent, 61.33 % male sample respondent whereas 60% female respondents are normal weighted, 32.67% male respondents and 20% female respondents are underweighted, 5.33% male sample respondents and 16% female respondents belong to overweight category, 0.67% male sample respondents and 4% female respondents are belong to obesity category.

**30 Meter Dash Run Test**

**Table 1.2: 30 Meter Dash Run Test of Respondents.**

| 30 Mts. Dash Run Test | | | |
|---|---|---|---|
| **Sr. No** | **Particular** | **Male** | **Female** |
| 1 | Highest Performance | 2.94 sec. | 4.00 sec |
| 2 | Lowest Performance | 6.1 sec | 7.39 sec |
| 3 | Mean | 4.21 | 5.37 |
| 4 | S.D. | 0.55 | 0.84 |

The performance of 30 Mts. Dash Running Test of male sample respondent ranges from 2.94 Seconds to 6.10 Seconds whereas performance of female sample respondent ranges from 4.00 second to 7.39 seconds.

**Standing Broad Jump Test**

**Table 1.3: Standing Broad Jump Test of Respondents.**

| Standing Broad Jump Test | | | |
|---|---|---|---|
| **Sr. No** | **Particular** | **Male** | **Female** |
| 1 | Highest Performance | 2.34 cm | 1.8 cm |
| 2 | Lowest Performance | 1.4 cm | 1.3 cm |
| 3 | Mean | 2.13 | 1.51 |
| 4 | S.D. | 0.25 | 0.15 |

The mean of Standing Broad Jump test of male sample respondent is 2.13 and female sample respondent is 1.51 obtained. It found that performance of female sample respondent is lower than male sample respondent the standard deviation of male sample respondent is 0.25 whereas female sample respondent is 0.15 respectively, which indicates significant relation in test.

**Vertical Jump Test**

**Table 1.4: Vertical Jump Test of Respondents.**

| Vertical Jump Test | | | |
|---|---|---|---|
| **Sr. No** | **Particular** | **Male** | **Female** |
| 1 | Highest Performance | 45 cm | 35 cm |
| 2 | Lowest Performance | 15 cm | 10 cm |
| 3 | Mean | 30.5 | 20.7 |
| 4 | S.D. | 6.37 | 7.48 |

It is found that most of the female sample respondent's performance in Vertical Jump is not satisfactory. It means legs power of female respondents is less than male respondent. Since lack of skipping exercises, lack of box drill exercises, lack ploy metric exercises are causes of poor performance of female respondent.

**6 X 10 meter Shuttle Run Test**

**Table 1.5: 6 X 10 meter Shuttle Run Test of Respondents.**

| 6 X 10 Mts. Shuttle Run | | | |
|---|---|---|---|
| **Sr. No** | **Particular** | **Male** | **Female** |
| 1 | Highest Performance | 13.21 sec | 17.06 sec |
| 2 | Lowest Performance | 21.55 sec | 17.06 sec |
| 3 | Mean | 17 | 20.49 |
| 4 | S.D. | 1.06 | 1.99 |

The mean of 6 X 10 Mts. Shuttle Run test is calculated. The mean of male sample respondent is 17.00 and female sample respondent is 20.49 obtained. The standard deviation of male sample respondent is 1.06 whereas female sample respondent is 1.99 respectively, which indicates significant relation in test.

**800 Meters Run Test**

**Table 1.6: 800 Meters Run Test of Respondents.**

| 800 Min. Run Test | | | |
|---|---|---|---|
| **Sr. No** | **Particular** | **Male** | **Female** |
| 1 | Highest Performance | 2.13 sec | 3.49 sec |
| 2 | Lowest Performance | 6.18 sec | 4.51 sec |
| 3 | Mean | 3.53 | 3.96 |
| 4 | S.D. | 0.69 | 0.35 |

The performances of 800 Min. Run Test of male sample respondent ranges from 2.13 Min. to 6.18 Min whereas performance of female sample respondent ranges from 3.49 Min. to 4.51 Min

**CONCLUSION:**

It is concluded that male and female respondents are having average normal but few are also having underweight due to the socio economic factor of the respondents. Also it is observed that the performance of female sample respondents is lower as compared to male sample respondents. The conclusion about the poor performance of female respondents is that, it is due to low family income, non availability of standard surface and restriction from family. It is also noticed that leg explosive power of male and female respondents is low. Also, that most of the sample respondents are belonging to the poor and middle class family. Hence, they are unable to bear the expenses of diet and physical fitness.

It is suggested that the college should make the provision for providing daily diet during the practice of the athletes. Since many colleges are providing assistance in the form of financial which should be avoided and assistance should be provided in the form of diet which will improve the physical fitness of the athletes.

University should make the provision for special coaching camps for the selected athletes from different colleges. The coaching camps should be conducted at Taluka level by appointing the experts from the field. The scientific training should be given for the university level representative.

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