SUMMARY

INTRODUCTION

Man is sportive by nature and no aspect of human life is more enjoyable and more educative as well as socialistic than sports, because it is through sports that man keeps himself highly fit both for work and achievements in competitive sport, improves his general well-being, enjoys sound health and contributes to the welfare of his own family, society and the nation. There is more than adequate historical evidence to highlight the fact that all sporting people and nations have always have had an, upper edge over non-sporting nations in almost all fields of life - health fitness, economics, productivity and even in war, which many great men have believed to be essential to ensure peace. The ancient Greeks well known to the world as the creators of the Olympic Games - were the first nation to have realized the importance of games and sports both in an individual's life and that of a nation. They made play and sport as an integrated part of their education and that was the reason that they developed the personality of their youth in such an integrated manner that every able-bodied young
boy could serve the country both, in war and peace. In war he made victory possible and in peace, he contributed to the prosperity of the society by producing more. All European nations today are comparatively healthier, fit and more prosperous because they follow the ancient Greek ideal of being sportive.

Unfortunately, the Indians, know quite a lot about sports as the very basis of organizing fitness, health, skill, social adjustment and personal development but, in reality, practice little. It is due to this reason alone that in several important aspects of our individual, social, economic and political life, we are not in the forefront as great many nations are; Swami Vivekananda - a great spiritual luminary of our times - wanted India to have more of football fields than temples because he firmly believed that only through play and sport, we could become a strong nation to defend ourselves against the foreign intruders and enjoy total freedom from disease, physical weakness, mental backwardness, social inequality and economic disparity. Playing no sport is the cause of many ills and weaknesses. Mahatma Gandhi always lamented that he could not
improve his handwriting and that he never participated or learnt any game or sport.

**STATEMENT OF THE PROBLEM**

"STUDY OF PHYSICAL FITNESS COMPONENTS AND PERFORMANCE OF WOMEN WRESTLERS OF SPORTS AUTHORITY OF INDIA COACHING CENTRES IN RELATION TO THEIR SOCIO ECONOMIC STATUS"

**SIGNIFICANCE OF THE STUDY**

For every sportsman, physical fitness is a must. Physical fitness components required in a sportsman are different according to the nature of the game. The nature of these components also depends on the socio-economic status and background of the sportsman. Wrestling is a universally recognised and one of the oldest games in the world. It is one of the best forms of sports which develop the mental as well as physical fitness of human beings. It offers excellent opportunities for long term physical, psychological and personality development. This is a very rigorous sport which demands self-discipline and self-reliance. The prerequisites of success in this sports—strength, speed, flexibility, agility, skill, endurance and general body
condition—are a natural outcome of learning to wrestle correctly under effective teaching.

Wrestling also provide a sound foundation for self defence and survival. It is an excellent recreation for maintaining general physical fitness. Proficiency in it is not limited by size and weight, to participate in it. Space, equipment and fellow participant needs are minimal as compared to other games such as football, hockey, cricket, tennis etc. so, eve since the remote past, wrestling has remained the most appreciated and much participated sports in the world.

However, very few and oldest research works have been done on wrestling applying the latest techniques to gauge the performance of the women wrestlers in relation o their physical fitness and socio-economic status. So, the present work is a modest attempt in this direction.

**OBJECTIVES OF THE STUDY**

The present study was undertaken with following main objectives in views:

1. To study to the Physical Fitness and Socio-Economic Status of women wrestlers of SAI centres.
2. To determine the differences in Physical Fitness components of women wrestlers belonging to Light weight, Middle Weight and Heavy Weight Categories.

3. To determine the differences in Physical Fitness components of women wrestlers belonging to High, Middle and Low Socio-Economic Status.

4. To determine the differences in interactional affects of weight category and Socio-Economic Status on Physical Fitness components of women wrestlers.

6. To determine the differences in SES of women wrestlers belonging to Light Weight, Middle Weight and Heavy Weight categories.

6. To determine the differences in Physical Fitness components in relation to SES in case of Light Weight, Middle Weight, Heavy Weight and Total sample of women wrestlers.

7. To determine the differences in SES of women wrestlers of different level of participation.

8. To determine the differences in performance of women wrestlers belonging to different level of participation.
9. To determine the differences in performance level of participation of women wrestlers belonging to low, middle and high socio-economic status.

10. To determine the differences in interactional effect of participation level and socio-economic status on performance of women wrestlers.

11. To determine the differences in performance in relation to SES in case of different level of international, national, state and junior national levels of women wrestlers.

HYPOTHESIS OF THE STUDY

On the basis of the literature review, expert opinion and scholar's own understanding of the problem below mentioned hypotheses were formulated;

1. There exist no significance differences in physical fitness components of women wrestlers belonging to Light weight, Middle Weight and Heavy Weight Categories.

2. There exist no significance differences in physical fitness components of women wrestlers belonging to High, Above Average, Average, Below Average and Low Socio-Economic Status.
3. There exist no significance differences in Interactional effects of weight category and Scio-Economic Status on Physical Fitness components of women wrestlers.

4. There exist no significance differences in SES of women wrestlers belonging to Light Weight, Middle Weight and Heavy Weight categories.

5. There exist no significance differences in Physical Fitness components in relation to SES in case of Light Weight, Middle Weight, Heavy Weight and Total sample of women wrestlers.

6. There exist no significance differences in SES of women wrestlers of different level of participation.

7. There exist no significance differences in performance of women wrestlers belonging to different level of participation.

8. There exist no significance differences in performance level of participation of women wrestlers belonging to low, middle and high socio-economic status.

10. There exist no significance differences in performance in relation to SES in case of different level of international, national, state and junior national levels of women wrestlers.

**PROCEDURE**

**SAMPLE**

All the wrestlers of three weight categories--- light weight, middle weight and heavy weight--- formed the total population of the study. A representative sample of 167 women wrestlers (62 Light Weight, 60 Middle Weight and 45 Heavy Weight) were selected by sampling technique. Only these wrestlers who have actively participated at district, state, Junior National national/inter-national level and No Participation were selected for final sample.

The total sample is shown in table 1

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Centres</th>
<th>No. of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patiala</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Hisar</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>Nidani</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Bhiwani</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Meerut (C.C.S.University)</td>
<td>42</td>
</tr>
<tr>
<td>6</td>
<td>Delhi</td>
<td>(69)</td>
</tr>
<tr>
<td></td>
<td>(Chattersaal stedium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prem Nath Akhara</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Chandgiram Akhara</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>I.G. Stedium</td>
<td>22</td>
</tr>
</tbody>
</table>
COLLECTION OF DATA

The data were collected by the researcher from the selected wrestlers with the assistance of coaches and Guru’s of various Akharas and wrestling SAI centres. They were given sufficient time for warming-up and getting themselves ready for the tests. The researcher herself firstly demonstrated the actual procedure for performing each test. Hence, all the tests were applied one after the other on the wrestlers, only the standard equipments were used for the tests. The test was conducted during the practice day or during the coaching camps, when the wrestlers were easily available.

TOOLS USED

The followed tools used for data collection:-

1) For physical fitness:- Physical fitness test battery consisting of following test was used to collection of data of physical fitness:

A) 8 lbs Shot Put Test: To measure Strength
B) 60 mt Run Test: To measure Speed
C) 4x10 mt Shuttle Run: To measure Agility
D) Standing Broad Jump: To measure Power
E) 9 min Run/Walk Test: To measure Endurance
2) For Performance level to check and write the highest performance level.

3) For Socio-Economic Status: To assess the SES, a SES questionnaire was used. The socio-economic status questionnaire was got filled by the wrestlers. It was scored according to the scoring key given in the manual of the scale.

All the tests are standardized tests with high reliability and validity coefficients.

DESIGN OF THE STUDY

Keeping the objectives of the study in mind, the wrestles were grouped into three categories namely, Light Weight, Middle Weight and Heavy Weight. The Weight category wise distributions of the wrestler are below:

Light Weight: Upto 54 kg.
Middle Weight: 55 to 63 kg.
Heavy Weight: 64 kg and Above.

The performance level: International, National/Interuniversity, State/university, Junior National and District Level are included. The division of score of socio-economic status of the wrestlers are below in table 2.
The total sample is shown in table 2

<table>
<thead>
<tr>
<th>SES</th>
<th>International</th>
<th>National</th>
<th>State</th>
<th>Jr. National</th>
<th>No Participation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Middle</td>
<td>19</td>
<td>25</td>
<td>23</td>
<td>13</td>
<td>3</td>
<td>83</td>
</tr>
<tr>
<td>Low</td>
<td>11</td>
<td>27</td>
<td>11</td>
<td>4</td>
<td>6</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>58</td>
<td>39</td>
<td>17</td>
<td>13</td>
<td>167</td>
</tr>
</tbody>
</table>

The wrestlers in each of these categories were further categorised according to their socio-economic status. The division of score of socio-economic status of the wrestlers are below:

High: Scored 61 or Above
Middle: Scored 41 to 60
Low: Scored 40 or Below

The numbers of wrestlers belonging to different weight groups in each of the SES category is shown in table 3.

The total sample is shown in table 3

<table>
<thead>
<tr>
<th>Category</th>
<th>Light Weight</th>
<th>Middle Weight</th>
<th>Heavy Weight</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>Middle</td>
<td>37</td>
<td>27</td>
<td>21</td>
<td>85</td>
</tr>
<tr>
<td>Low</td>
<td>15</td>
<td>25</td>
<td>17</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>60</td>
<td>45</td>
<td>167</td>
</tr>
</tbody>
</table>
ANALYSIS OF DATA

Keeping the objectives and design of the study in view, the data were analysed by Appling (3 x 5) two way analyses of variances (ANOVA) and critical ratio (t-ratio) statistical techniques.

Analysis of variance technique was applied to study the Mean differences in physical fitness components—strength, speed, agility, power and endurance—in relation to different weight categories and SES of wrestlers.

Critical ratios were calculated to find out the differences in SES of different performance level and categories of wrestlers; and also to find out the differences in physical fitness components in relation to SES of Light, Middle and Heavy Weight wrestlers.

MAIN FINDINGS

1. Weight category of wrestlers as a single main variable shows significant difference on the Strength components of physical fitness. The mean scores show that heavy weight category wrestlers are better in the strength component of physical fitness than the Light weight and Middle Weight category wrestlers. In case of Light and Middle weight category, Middle weights
are better as compare to Light Weight category wrestlers.

2. The interaction for Weight x SES of the wrestlers on strength component of physical fitness is significant. Hence, weight is dependent on SES in relation to betterment on strength component of physical fitness of wrestlers.

3. Weight category of wrestlers as a single main variable shows significant difference on the Speed components of physical fitness. The mean scores show that Middle weight category wrestlers are better in the Speed component of physical fitness than the Light weight and Heavy Weight category wrestlers. But there is no impact of weight in case of Light weight & Heavy weight wrestlers for the betterment of speed component of physical fitness.

4. Weight category of wrestlers as a single main variable shows significant difference on the Agility components of physical fitness. The mean scores show that Middle weight category wrestlers are better in the Agility component of physical fitness than the Light weight and Heavy Weight category wrestlers. But there is no impact of weight in case of Light weight & Heavy
weight wrestlers for the betterment of Agility component of physical fitness.

5. Weight category of wrestlers as a single main variable shows significant difference on the Power components of physical fitness. The mean scores show that Middle weight category wrestlers are better in the Power component of physical fitness than the Light weight and Heavy Weight category wrestlers. But there is no impact of weight in case of Light weight & Heavy weight wrestlers for the betterment of Power component of physical fitness.

6. Weight category of wrestlers as a single main variable shows significant difference on the Endurance components of physical fitness. The mean scores show that Middle weight category wrestlers are better in the Endurance component of physical fitness than the Light weight and Heavy Weight category wrestlers. But there is no impact of weight in case of Light weight & Heavy weight wrestlers for the betterment of Endurance component of physical fitness.

7. In the Middle Weight category wrestlers belonging to High SES are better than Middle SES and Low SES.
8. In the Heavy Weight Category wrestlers belonging to Middle SES are better than High SES and Low SES.

9. Performance of wrestlers as a single main variables shows exist significance differences on the different participation level. The mean scores show that different level of participation wrestlers are better in performance as compare to other participation levels of wrestlers.

10. SES of wrestlers as a single main variables shows exist significance difference on the different participation level of performance. The mean scores show that wrestlers belonging to the High SES are better in performance as compare to wrestlers belonging to Middle SES and Low SES. In case of wrestlers belonging to Middle SES and Low SES, wrestlers belonging to Middle SES are better in performance as compare to wrestlers belonging to Low SES.

11. The interaction for performance x SES of the wrestlers on different participation level is significant. Hence, performance is dependent on SES in relation to betterment of participation levels of the wrestlers.

12. In the International level wrestlers belonging to High SES are better in performance in this level as compare
to wrestlers belonging to Middle SES and Low SES. In case of wrestlers belonging to Middle SES and Low SES, wrestlers belonging to Middle SES are better in performance as compare to wrestlers belonging to Low SES.

13. In the National level wrestlers belonging to High SES are better in performance in this level as compare to wrestlers belonging to Middle SES and Low SES. In case of wrestlers belonging to Middle SES and Low SES, wrestlers belonging to Middle SES are better in performance as compare to wrestlers belonging to Low SES.

14. In the State level wrestlers belonging to High SES are better in performance in this level as compare to wrestlers belonging to Middle SES and Low SES. In case of wrestlers belonging to Middle SES and Low SES, wrestlers belonging to Middle SES are better in performance as compare to wrestlers belonging to Low SES.

15. In Junior National level wrestlers belonging to Middle SES are better in performance as compare to wrestlers belonging to Low SES.