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A comparative study of anthropometric measurements between netball and volleyball players

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Abstract:

Anthropometric Measurement, Branch of science concerned with comparative measurements of the human body, its parts, and its proportions and composition. An anthropometric measurement is defined as dimension of the structure of the human body taken at specific sites to give measures of length, girth and width and subcutaneous fatty tissue. This was comparing the anthropometric variables between volleyball and netball players
Keywords: Anthropometric Measurement, Arm Length, Forearm Girth, Calf Girth, Thigh Girth tc.

Introduction

Sports have become the media of international relationship between the countries. Sports in the present day have become extremely competitive, previous records are being broken whenever there is competition. It is not mere participation or few days practice that brings an individual victory, but the continuous hard work of training right from childhood, a strong anthropometry and physiological variables may influenced..”

Limitations of the Study

Non availability of sophisticated instruments for measuring anthropometric measurements and 16 Personality factors were considered as one of the limitation for the study. No special motivational techniques were used while conducting the tests was considered as limitation. Factors such as socio-economic status, dietary habits, geographical variations, daily routine work, training, diet might have influenced the results which were not taken into consideration, which will be considered as another limitation.

Delimitations

The study was delimited to a total of 96 players from Netball and Volleyball games who have to be represented at university level. The age of the subjects chosen was 18 to 28 years.

3. The following physical fitness, anthropometric measurements and psychological Anthropometric Measurements 1. Arm Length 2. Forearm Girth 3. Calf Girth 4. Thigh Girth

Hypotheses

The following hypotheses were formulated for empirical validation. It was hypothesized that

1. There would not be any significant difference in selected anthropometric measurements between Netball and Volleyball university players.

Methodology

Selection of subjects

The purpose of the present study is to compare the selected, anthropometric measurements between volleyball and netball university players of Bangalore University, Mangalore University, University of Mysore and Kuvempu University volleyball and netball teams. To achieve the purpose of the study, ninety six male players were selected at random from each category of Netball and Volleyball players, a total of 96 players in Karnataka state, India, who had their credit in participating interuniversity tournaments during the academic year 2011-12 in their respective games.

Selection of variables

Physical, anthropometric and psychological parameters are the ideal indicators of sports performance status of an individual. Even the slightest imbalance due to circadian variations may influence the level of performance. These parameters play an important role in almost all games and sports. Hence, the following variables were selected for this study:

Anthropometric Measurements

1. Arm Length 2. Forearm Girth 3. Calf Girth 4. Thigh Girth

Selection of Tests

The present study was undertaken primarily to compare the selected physical fitness, anthropometric measurements among selected university level Netball and Volleyball players of Karnataka state, India. As per the available literatures, the following standardized tests were used to collect relevant data on the selected dependent variables and they were presented in the Table-1(a)

Table I (a): Tests Selection

| Sl. No. | Criterion Variables | Test Items | Unit of Measurement |
|-----------------------------|---------------------|------------|---------------------|
| Anthropometric Measurements | | | |
| 1. | Am Length | | In Cms. |
| 2. | Forearm Girth | | In Cms. |
| 3. | Calf Girth | | In Cms. |
| 4. | Thigh Girth | | In Cms. |

Research Design and Statistical Analysis

A two-sample t-test can only be used to assess the significance of the difference between the mean values of two independent groups. To compare differences in the mean values of three or more independent groups, Analysis of Variance (ANOVA) is used. Thus, ANOVA is suitable when the outcome measurement is a criterion variable and when the explanatory variable is categorical with three or more groups. A One-way ANOVA is used when the effect of only one categorical (outcome) is explored. The concept of ANOVA can be thought of as an extension of a two-sample t-test.

Analysis and Interpretation of the Data

The analysis of data and detailed results of the study have been discussed in this chapter. The purpose of the present study was to compare the selected anthropometric measurements variables between Netball and Volleyball university players of Karnataka. To achieve this, ninety six male players were selected randomly from each category of Netball and Volleyball games, a total of 96 players in Bangalore University, Mangalore University, University of Mysore and Kuvempu University teams of Karnataka state, India, who had their credit in participating university tournaments during the academic year 2011-12 in their respective games. The probability level below which we reject the hypotheses is termed as level of significance. The 't' value obtained by 't' Test Analysis was compared at 0.05 and 0.01 levels of significance, which was considered as adequate.

Percentile Analysis

Percentile analysis one of the statistical measures used to describe the sample in terms of their demographic characteristics such as type of players and type of university. Distribution of sample based on the above mentioned demographic characteristics is given in the following tables

Table 1: Distribution of sample over type of sports players

| Players | Frequency | Percentage |
|------------|-----------|------------|
| Netball | 48 | 50.00 |
| Volleyball | 48 | 50.00 |
| Total | 96 | 100.00 |

Table shows that 48 (50.00%) of the subjects are the Netball players and 48 (50.00%) of the subjects are the volleyball players who had their credit in participating university tournaments during the academic year 2011-12 in their respective games were selected. The pie diagram shows the number of sample of Netball and Volleyball players involved in the present study.

Inferential Statistics: 'T' Test The analysis was carried out through various statistical techniques such as the descriptive and 't' test analysis. The data were compiled and analyzed using the Statistical Package for the Social Science (SPSS Version 16.5) for Windows XP Software. Hypotheses regarding compare the Basketball and Volleyball university players' physical fitness, anthropometrical and 16 personality factors were tested and the findings of testing these hypotheses were presented.

Each hypothesis tested is followed by a summary of testing that hypothesis was also presented. Finally, the summary of findings to research questions was presented. Testing of Hypotheses There was no significant difference between Basketball and Volleyball Players on selected Anthropometric

Table 1: Table showing the Mean scores, Standard Deviation and 't' value of the Forearm Girth of the university Netball and Volleyball players.

| Forearm Girth (In Cms.) | Netball Players | Volleyball Players |
|----------------------------|-----------------|--------------------|
| Mean | 25.854 | 26.437 |
| Standard Deviation | 1.700 | 1.687 |
| 't' value | 1.68NS | |

NS Not Significant

The formulated hypothesis is that "there is a significant difference in the Forearm Girth between Netball and Volleyball university players", hence, the collected data was applied to the statistical techniques to find out the significant difference in the Forearm Girth between Netball and Volleyball university players. The calculated mean scores, standard deviation of Netball players are 25.854 and 1.700 respectively and mean scores and standard deviation of Volleyball players are 26.437 and 1.687 respectively. The calculated 't' value 1.68 is less than the table value 1.98 at 0.05 level. Hence, the stated hypothesis accepted for the said criterion variable that "there is no significant difference in the Forearm Girth between Netball and Volleyball university players." The both players had similar forearm girth.

Table 2: Table showing the Mean scores, Standard Deviation, and 't' value of the Arm Length of the university Netball and Volleyball players.

| Arm Length (In Cms.) | Netball Players | Volleyball Players |
|-------------------------|-----------------|--------------------|
| Mean | 80.000 | 81.895 |
| Standard Deviation | 3.913 | 3.465 |
| 't' value | 2.51* | |

*Significant at 0.05 level

The formulated hypothesis is that "there is a significant difference in the Arm Length between Netball and Volleyball university players", hence, the collected data was applied to the statistical techniques to find out the significant difference in the Arm Length between university Netball and Volleyball players. The calculated mean scores and standard deviation of Netball players are 80.000 and 3.913 respectively and mean scores and standard deviation of Volleyball players are 81.895 and 3.465 respectively.

The calculated 't' value 2.51 is greater than the table value 1.98 at 0.05 level. Hence the stated hypothesis for the said criterion variable is rejected and an alternative hypothesis has been accepted that "there is a significant difference in the Arm Length between Netball and Volleyball university players." The volleyball players had more Arm length than basketball players.

Table 3: Table showing the Mean scores, Standard Deviation and 't' value of the Calf Girth of the university Netball and Volleyball players.

| Calf Girth (In Cms.) | Netball Players | Volleyball Players |
|-------------------------|-----------------|--------------------|
| Mean | 35.291 | 34.833 |
| Standard Deviation | 2.534 | 2.486 |
| 't' value | 0.89NS | |

NS Not Significant

The formulated hypothesis is that "there is a significant difference in the Calf Girth between Netball and Volleyball university players, hence, the collected data was applied to the statistical techniques to find out the significant difference in the Calf Girth between university Netball and Volleyball players. The calculated mean scores and standard deviation of Netball players are 35.291 and 2.534 respectively and mean scores and standard deviation of Volleyball players are 34.833 and 2.486 respectively. The calculated 't' value 0.89 is less than the table value 1.98 at 0.05 level.

Hence the stated hypothesis for said criterion variable is accepted that “there is no significant difference in the Calf Girth between Netball and Volleyball university players.” The both players had similar calf girth. Table 4: Table showing the Mean scores, Standard Deviation and ‘t’ value of the Thigh Girth of the university Netball and Volleyball players.

| Thigh Girth (In Cms.) | Netball Players | Volleyball Players |
|--------------------------|-----------------|--------------------|
| Mean | 52.625 | 51.437 |
| Standard Deviation | 4.408 | 3.825 |
| ‘t’ value | 1.41NS | |

NS Not Significant

The formulated hypothesis is that there is a significant difference in the Thigh Girth between Netball and Volleyball university players”, hence, the collected data was applied to the statistical techniques to find out the significant difference in the Thigh Girth between university Netball and Volleyball players. The calculated mean scores and standard deviation of Netball players are 52.625 and 4.408 respectively and mean scores and standard deviation of Volleyball players are 51.437 and 3.825 respectively. The calculated ‘t’ value 1.41 is less than the table value 1.98 at 0.05 level. Hence the stated hypothesis for said criterion variable is accepted that “there is no significant difference in the Thigh Girth between Netball and Volleyball university players.” The both players had similar thigh girth.

Discussion and conclusion

The Volleyball players showed markedly greater standing height, forearm length and arm length than Netball players. It may be concluded that arm anthropometric information would have vast studios assessment in the identification of sport talents in overhead games such as Netball and Volleyball. In volleyball, teams compete by manipulating skills of spiking and blocking high above the head. In basketball, players try to carry the ball by dribbling and passing among a group of teammates and opponents and score goals in a hoop located above the head. Since both games require handling the ball above the head, height is considered to be the most important physical attribute.

Some authors have suggested the height as an important condition of sports talent in such events that require height and the presence of tall players is an indispensable element in success as a team. In the study, significantly lesser height among the inter-university netball players might be disadvantageous for them in attaining a good jumping height as their center of gravity would be comparatively lower. In tall players, proportionally longer extremities are beneficial to reach the basket. Some authors opined the height as an important condition of sports talents in such events that require it, and the presence of tall players was an indispensable element in success as a team. Even though no significant difference was observed in the values of body weight, leg length and forearm, calf and thigh girths between the two groups. The possible reason could be explained in terms of nature and skills of the game.

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Analysis Of Selected Psychological Variables Among Inter-University Level Of Cricket, Handball And Volleyball Players

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Abstract

The purpose of the study was to investigate the “comparative analysis of selected psychological variables among inters- university level of Cricket, Handball and Volley ball players”.Hundred subjects of each in cricket, handball and volleyball players from affiliated college of Kashmir University in Kashmir was selected at random between 18-28 years. Rainer, Robin S. Vealey, Damon Burton (1983) Illiiosis Self-Evaluation Questionnaire, was used to measure cognitive anxiety, somatic anxiety, and self- confidence. This questionnaire consists of 27 questions of 3 components, namely cognitive anxiety, somatic anxiety and self- confidence. The data was statistically analyzed by using One-way analysis of variance to find out the difference between psychological variables. it was concluded that there was significant difference in cognitive anxiety among inter-university level, cricket handball and volleyball players.It was observed that cricket players has more cognitive anxiety as compared to handball volleyball players and handball players have more somatic anxiety as compared to cricket and volleyball players. Handball players has more self-confidence as compared to cognitive anxiety and somatic anxiety and was concluded that there was significant difference in cognitive anxiety, somatic anxiety, and self-confidence among inter-university level.**KEYWORDS:** - Self- confidence, Somatic anxiety, Cognitive anxiety

Introduction

Competition is a social process that takes place when prizes are given to people on the basis of comparison of their performance with others participants in the same event (Coakley, 1994). this creates a pre-competitive anxiety which in sports refers to an unpleasant emotion; characterized by imprecise but persistent feeling of uneasiness and fear before competition. It is very important to know the level of anxiety especially the cognitive anxiety in order to take all necessary steps to reduce it. Once an athlete experience high level of cognitive anxiety there will be a quick or catastrophic decrease in performance. Cognitive anxiety is characterized by concerns and worries about performance, inability to concentrate, and disrupted attention (Krane, 1994). Somatic anxiety consists of an individual's perceptions, which are characterized by indications such as sweaty palms, butterflies, and shakiness. The present study aims to compare the effect of physiological factors on Cricket, Volleyball and Handball player's.

Materials and Methods

Prospective cross study was carried out and hundred subjects in each cricket, handball and volleyball players from the affiliated colleges ofKashmir University were selected assubjects of age group 18-25 years were taken randomly. Rainer Martens, Robin S. Vealey, damon burton (1983) Illiiosis Selfevaluation Questionnaire, was used to measure cognitive anxiety,somatic anxiety, and self- confidence. This questionnaire consists of 09 questions for each components. The question nos. of each component is as follows.

Cognitive anxiety: 1, 4, 7,10,13,16,19,22,25.

Somatic anxiety: 2, 5, 8,11,14,17,20,23,26.

Self- confidence: 3, 6, 9, 12, 15, 18,21,24,27.

Results and Discussion

The data collected from the subjects were treated statically, One-way analysis of variance was used to find out the difference between psychological variables among university level of cricket, handball and volleyball players.

TABLE-1: Computation of analysis variance of cognitive anxiety among inter -university level men cricket, handball and volleyball players

| Mean value for | | | Source of variance | Sum of square | Df | Mean square | Obtained f-value |
|-----------------|-------------------|---------------------|--------------------|---------------|-----|-------------|------------------|
| Cricket Players | Hand ball Players | Volley ball Players | Between the group | 2083.52 | 2 | 1041.76 | 45.13 |
| 29.19 | 29.11 | 23.56 | within the group | 6855.82 | 297 | 23.08 | |

Significance at 0.05 level

F ratio at 0.05 level of confidence for the (DF) 2 and 297 is =3.88

Table-1. Shows that the obtained mean values on cognitive anxiety of cricket players was 29.19 handball players was 29.11 and volleyball players was 23.56, the analysis of variance (ANOVA) of the mean proved that there was a significant difference in cognitive anxiety between the players as the obtained F-value 45.13 was greater than the required table value of 3.88 to be significant at 0.05 level of confidence.

TABLE-2: Computation of analysis variance somatic anxiety among inter- university level men cricket, handball and volleyball players

| Mean value for | | | Source of variance | Sum of square | Df | Mean square | Obtained f-value |
|-----------------|-------------------|---------------------|--------------------|---------------|-----|-------------|------------------|
| Cricket Players | Hand ball Players | Volley ball Players | Between the group | 1591.28 | 2 | 795.64 | 41.23 |
| 26.02 | 28.31 | 22.70 | Within the group | 5730.35 | 297 | 19.29 | |

Significance at 0.05 level

F- ratio at 0.05 level of confidence for the (DF) 2 and 297 is =3.88

Table -2 Shows that the obtained mean values on somatic anxiety of cricket players was 26.02 handball players was 28.31 and volleyball players was 22.70, the analysis of variance (ANOVA) of the mean proved that there was a significant difference in somatic anxiety between the players as the obtained F-value 41.23 was greater than the required table value of 3.88 to be significant at 0.05 level of confidence.

TABLE-3: Computation of analysis variance self-confidence among inter- university level men cricket, handball and volleyball players.

| Mean value for | | | Source of variance | Sum of square | Df | Mean square | Obtained f-value |
|-----------------|-------------------|---------------------|--------------------|---------------|-----|-------------|------------------|
| Cricket Players | Hand ball Players | Volley ball Players | Between the group | 3253.50 | 2 | 1626.75 | 93.95 |
| 29.30 | 29.75 | 22.55 | Within the group | 5142.50 | 297 | 17.31 | |

Significance at 0.05 level

F- ratio at 0.05 level of confidence for the (DF) 2 and 297 is =3.88

Table -3: Shows that the obtained mean values on self-confidence of cricket players was 29.30 handball players was 29.75 and volleyball players was 22.55, the analysis of variance (ANOVA) of the mean proved that there was a significant difference in self-confidence between the players as the obtained F-value 93.95 was greater than the required table value of 3.88 to be significant at 0.05 level of confidence.

TABLE-4: Computation of analysis variance cognitive anxiety, somatic anxiety and self-confidence among inter- university level men cricket, players

| Mean value for | | | Source of variance | Sum of square | Df | Mean square | Obtained f-value |
|-----------------------------------|---------------------------------|---------------------------------|--------------------|---------------|-----|-------------|------------------|
| Cricket Players cognitive anxiety | cricket Players somatic anxiety | cricket Players self-confidence | Between the group | 693.98 | 2 | 346.99 | 17.97 |
| 29.19 | 26.02 | 29.30 | Within the group | 5726.35 | 297 | 19.28 | |

Significance at 0.05 level

F- ratio at 0.05 level of confidence for the (DF) 2 and 297 is =3.88 Table -4Shows that the obtained mean values on cognitive anxiety, of cricket players was 29.19 somatic anxiety of cricket players was 26.02 and self-confidence of cricket players was 29.30 the analysis of variance (ANOVA) of the mean proved that there was a significant difference in self-confidence between the players as the obtained F-value 17.97 was greater than the required table value of 3.88 to be significant at 0.05 level of confidence.

TABLE-5: Computation of analysis variance cognitive anxiety, somatic anxiety and self-confidence among inter- university level men handball, players

| Mean value for | | | Source of variance | Sum of square | Df | Mean square | Obtained f-value |
|-------------------------------------|-----------------------------------|-----------------------------------|--------------------|---------------|----|-------------|------------------|
| Hand ball Players cognitive anxiety | Hand ball Players somatic anxiety | Hand ball Players self-confidence | Between the group | 104.10 | 2 | 52.05 | 3.11 |

| | | | | | | | |
|-------|-------|-------|------------------|---------|-----|-------|--|
| 29.11 | 28.31 | 29.75 | Within the group | 4961.93 | 297 | 16.70 | |
|-------|-------|-------|------------------|---------|-----|-------|--|

Significance at 0.05 level

F- ratio at 0.05 level of confidence for the (DF) 2 and 297 is =3.88

Table-5 Shows that the obtained mean values on cognitive anxiety, of handball players was 29.11 somatic anxiety of handball players was 28.31 and self-confidence of handball players was 29.75 the analysis of variance (ANOVA) of the mean proved that there was a significant difference in self-confidence between the players as the obtained F-value 3.11 was less than the required table value of 3.88 to be significant at 0.05 level of confidence.

TABLE-6: Computation of analysis variance cognitive anxiety, somatic anxiety and self-confidence among inter- university level men volleyball players.

| Mean valu for | | | Source of variance | Sum of square | Df | Mean square | Obtained f-value |
|---------------------------------------|-------------------------------------|-------------------------------------|--------------------|---------------|-----|-------------|------------------|
| Volley ball Players cognitive anxiety | Volley ball Players somatic anxiety | Volley ball Players self-confidence | Between the group | 59.40 | 2 | 29.70 | 1.25 |
| 23.56 | 22.70 | 22.55 | Within the group | 7040.39 | 297 | 23.70 | |

Significance at 0.05 level

F- ratio at 0.05 level of confidence for the (DF) 2 and 297 is =3.88

Table -6 Shows that the obtained mean values on cognitive anxiety, of volleyball players was 23.56 somatic anxiety of volleyball players was 22.70 and self-confidence of volleyball players was 22.55 the analysis of variance (ANOVA) of the mean proved that there was a significant difference in self-confidence between the players as the obtained F-value 1.25 was less than the required table value of 3.88 to be significant at 0.05 level of confidence. The obtained mean value of cognitive anxiety, somatic anxiety and self-confidence among inter-university level volleyball players are presented in figure 6 for better understanding.

Conclusion

1. It was concluded that cricket players had more cognitive anxiety as compared to Handball and Volleyball players. There was a significant difference observed in somatic anxiety and self confidence among inter-university level men. 2. it was concluded that cricket and Handball players has more self-confidence when compared to cognitive anxiety and somatic anxiety respectively. Were as in Volleyball players cognitive anxiety was found more.

Acknowledgement

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Assessment Of Parents' Level Of Satisfaction With Cleft Lip / Palate Treatment Results In Central Vietnam And Surrounding Provinces

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Abstract

Cleft lip and/or palate (CLP) is a congenital defect with high prevalence in developing countries including Vietnam. The treatment requires an interdisciplinary therapy to ensure patient satisfaction in regard to appearance and function. The aim of this study was to evaluate the parents' level of satisfaction with CLP treatment outcomes in central Vietnam and the surrounding provinces. The sample consisted of 70 CLP patients who had undergone surgery in Da Nang Orthopedic and rehabilitation hospital of Vietnam in affiliation with DEVIEMED organization of Germany on March of 2016, as well as 32 parents of the patients who participated (response rate was 45.7%). Data included age, gender, type of cleft, and collection and documentation of medical records. The degree of parents' satisfaction with the esthetics and function was also collected via questionnaires. Of the seventy patients with CLP selected the male/female ratio was 1.12:1 (37/33). Of 4 types cleft including Bilateral CLP, Unilateral CLP, CP and CL, patients with Unilateral CLP made up the highest proportion totaling 39/70 (55.7%). There was significant difference in the types of CLP between male and female ($p = 0.028$). The majority of patients were ages 1 day to 2 years 40/70 (57.1%). The parents were quite satisfied (Score > 3 on a 5-point Likert Scale 1 – 5) with lip and face esthetics of their patients and its function (hearing, inspiration, level of being understood audibly and drinking ability). The significant differences in satisfaction amongst 4 types of cleft (Bilateral CLP; Unilateral CLP, CP, CL) were reported by parents in regard to nose esthetics ($p = 0.044$, Kruskal-Wallis Test) and their patients' level of being understood audibly (also $p = 0.044$). The parents had a good degree of satisfaction in regard to the esthetics of the lip and face and its function but some were less than satisfied with teeth, nose and jaw esthetics. Therefore, it is recommended that different treatment plans should be devised and tailored specifically to 4 types of cleft defects to ensure increased satisfaction of the patients and also their parents. *Keywords:* Cleft lip and palate, satisfaction, esthetics, function.

Introduction

Oral clefts – cleft lip with or without cleft palate (CL/P) and cleft palate (CP) – are among the most common congenital malformations worldwide. The overall incidence of cleft lip (CL), cleft palate (CP) and cleft lip and palate (CLP) in Viet Nam is 1 per 700 live births.[4],[7]. Children with cleft lip and palate usually cope with craniofacial anomalies, missing teeth and communicated problems such as: speech pathology, loss hearing [6],[2],[8]. A protocol for the treatment should be followed by the multidisciplinary healthcare providers, the coordination amongst them is a major contributor to success in cleft treatment. This article gives a statistical overview about assessment parent's level of satisfaction cleft lip and palate treatment in central Viet Nam and surroundings provinces.

METHODS

For the purpose of the analytic, quantitative and descriptive cross – sectional study, data has been collected from the sample consisted of 70 cleft lip and palate patients who had undergone surgery in Da Nang Orthopedic and rehabilitation hospital of Vietnam in affiliation with DEVIEMED organization of

Germany on March of 2016, as well as 32 parents of the patients who participated (response rate was 45.7%). Data included age, gender, type of cleft, and collection and documentation of medical records. The degree of parents' satisfaction with the esthetics and function was also collected via questionnaires.

RESULTS

There were 37(52.9%) males patients, 33 (47.1%) females patients in total 70 patients, the gender ratio was 1.12:1 with males were more frequently than females (fig 1).

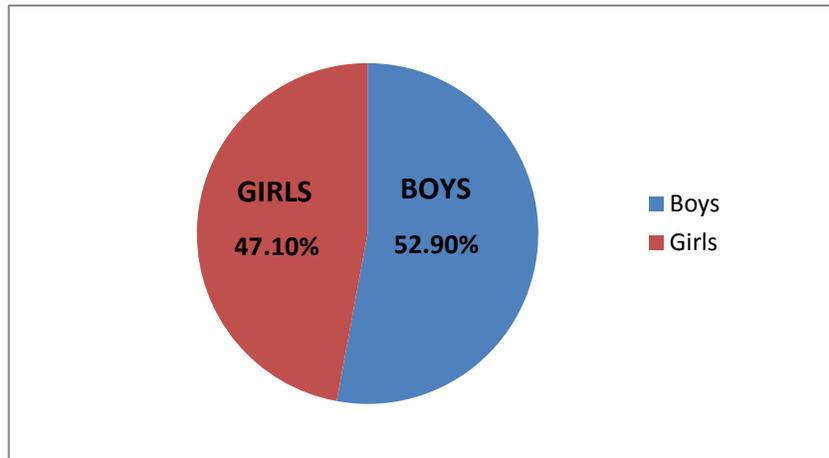


Fig 1. Gender of the cleft lip and palate patients

Figure 2 shows the most common cleft type was Unilateral cleft lip and palate (55.7%), 20% of clefts were Bilateral cleft lip and palate, 18.6% were Cleft palate and 5.7% were Cleft lip.

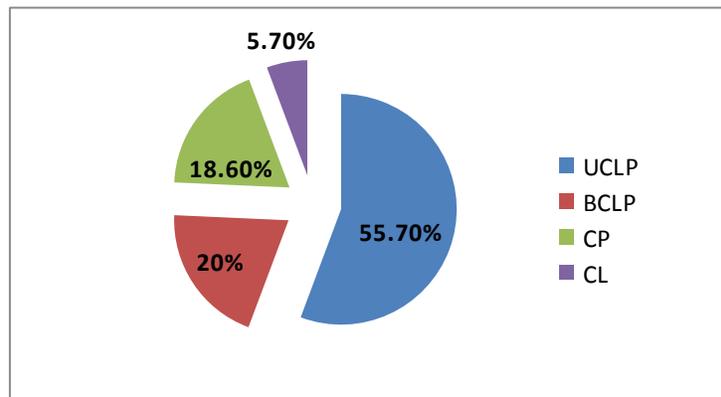


Fig 2. Occurrence of different cleft types (UCLP-Unilateral cleft lip and palate, BCLP -Bilateral cleft lip and palate, CP-Cleft palate, CL-Cleft lip)

| Cleft type | Boys | Girls | Total | Significance |
|------------|------|-------|-------|--------------|
| UCLP | 18 | 21 | 39 | P = 0.028 |
| BLCP | 13 | 1 | 14 | |
| CP | 5 | 8 | 13 | |
| CL | 1 | 3 | 4 | |

Table 1. Relationship between gender and cleft types (UCLP-Unilateral cleft lip and palate, BCLP - Bilateral cleft lip and palate, CP-Cleft palate, CL-Cleft lip). There was significant difference in the types of CLP between male and female ($p = 0.028$) (Tab.1 and Fig.3).

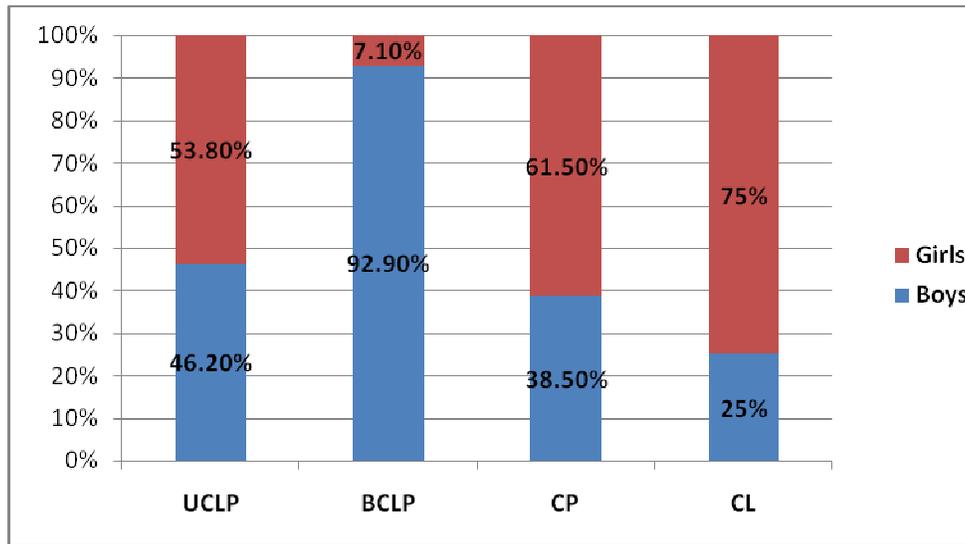


Fig 3. Cleft types according to gender (UCLP-Unilateral cleft lip and palate, BCLP -Bilateral cleft lip and palate, CP-Cleft palate, CL-Cleft lip). The parents were quite satisfied (Score > 3 on a 5-point Likert Scale 1 – 5) with lip and face esthetics their patients and its function (hearing, inspiration, being understood audibly and drinking-eating ability) (Fig.4).

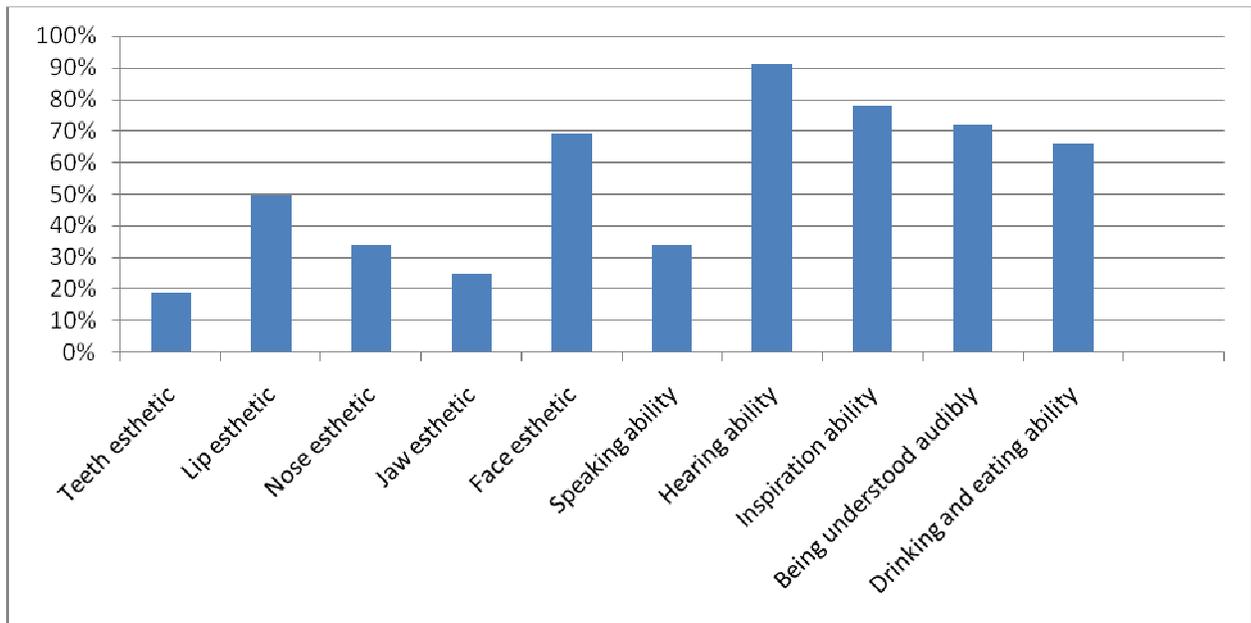


Fig 4. Parent's level satisfaction with esthetic and function (score > 3 on a 5-point Likert Scale 1-5)

Fig 5 indicates that parent more satisfied with treatment result of cleft lip and cleft palate than cleft lip and palate.



Fig 5. Parent's level satisfaction with treatment results of 4 clefts type (UCLP-Unilateral cleft lip and palate, BCLP -Bilateral cleft lip and palate, CP-Cleft palate, CL-Cleft lip).

Discussion And Conclusion

In total 70 patients with cleft lip with or without palate participated in, the gender ratio is not distorted in the general population. As a finding of the study we found the highest occurrence rate of UCLP, which is similar to the study of Nikolao Gkantidis et al, the lowest occurrence rate was CL. There was difference in the types of cleft between male and female, females had more frequently UCLP, CP and CL than males. Males had more frequently BCLP than females, although the development of clefts occurs at different stages of development in male and female fetuses in the critical stage, but there is no definite specific explanation on differences in clefts between sexes.

According to the study, most of parents of cleft lip palate children satisfy to the treatment results, 50% parents satisfy to lip esthetic, 69% parents satisfy to face esthetic and the lowest satisfaction was teeth esthetic. Because the main bone growth of the middle third of face is completed up to 9 years of age, and after this period, the proportions of the middle part of the face changes slightly, we need more longitudinal evaluations to have realistic results. In the assessment of function, 91% parents pleased with hearing ability, 78% parents pleased with inspiration ability, 72% parents pleased with being understood audibly and 66% parents pleased with drinking and eating ability, which is similar to the results conducted by K.M. Van Lieder et al. [3]

The significant differences in satisfaction amongst 4 types of cleft were reported by parents in regard to nose esthetics and their patients' level of being understood, which is similar to study by B.C.M Oosterkamp et al.[4], and the reason of which need further research. One reason was given that developmental anomalies occur in patients born with cleft lip or palate less than cleft lip and palate.[7].

The parents had a good degree of satisfaction in regard to the esthetics of the lip and face and its function but some were less than satisfied with teeth, nose and jaw esthetics. Therefore, it is recommended that different treatment plans should be devised and tailored specifically to 4 types of cleft defects to ensure increased satisfaction of the patients and also their parents.

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Self Confidence Inventory On Performance Of University Athletes - Empirical Viewpoint Approach

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Introduction:

The major objectives of this study is to examine 'a study on the effect of socio-economic status and self-confidence on performance of university athletes' with a view to make the study more meaningful, certain specific aspect have also been studied and they are as under: To know the concrete frame-work of self-confidence on presentation of university athletes. To analyse the athlete Self-Confidence Inventory of University Athletes perception from sports athlete respondents. To offer findings and suggest for improve the performance of University Athletes in India in the light of the findings study.

Research Methodology:

I. Source of Data: The data for the study has been gathered from both the primary and the secondary sources, though the study is mainly based on primary data. The study is basically descriptive in nature. For the purpose of the study, primary and secondary information has been gathered from the existing literature such as relevant research based on books, articles and some relevant website have been visited for the appreciation of the conceptual issues involved.

II. Sample Size:

The researchers collected information pertaining to Socio-Economic Status on Performance of University Athletes from 200 sample University Athletes, in India by circulating questionnaire. Sample respondents were administered sportsman personality test and family climate scale and their responses were scored and tabulated for statistical analysis.

Before administering the questionnaire respondents had been given full instruction for completing the questionnaire. They were assured that their information will be kept confidential. There was no time limit; but the papers were to be filled in one stretch.

LIMITATIONS OF THE STUDY:

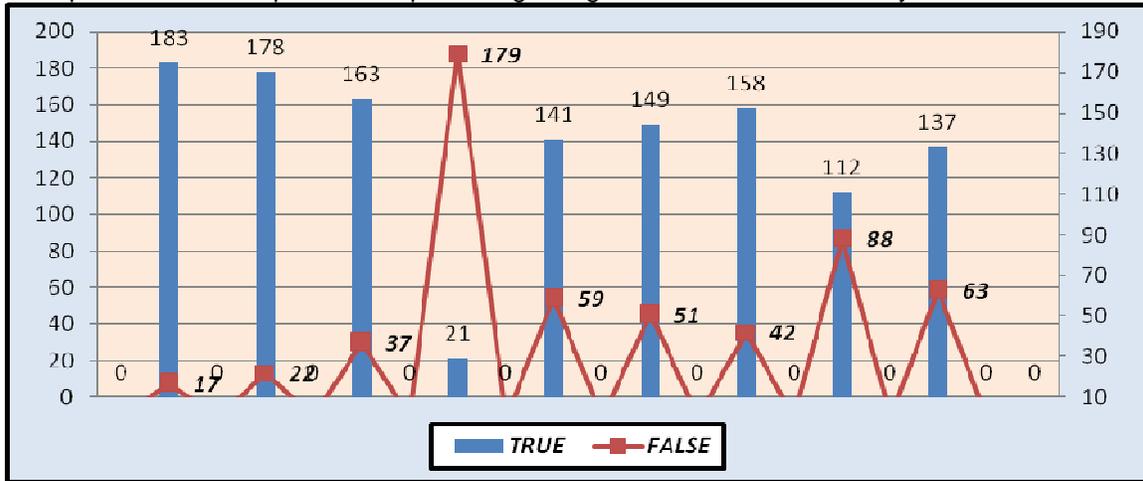
The study is based on sample selected respondents only.

The study is based on Primary and Secondary data. Therefore, the limitations of secondary data may also creep in and have an impact on the present study.

Results And Discussion:

The research data has been gathered from sample University Athletes-respondents belonging to different universities in India. The filled-in questionnaires received from the Athletes-respondents were studied, analysed and tabulated. Such tabulated data along-with interpretation has been presented in the subsequent paragraphs. It is a known fact that every game needs the specific skills which are essential for success in the competitions. The execution of the skill can be aesthetic and graceful if the individual possesses the requisite fitness components. The fitness components required differ as per the demands of the skills and the game.

Chart-1: Sports Athlete Respondents' opinion regarding Self Confidence Inventory - Basavanna

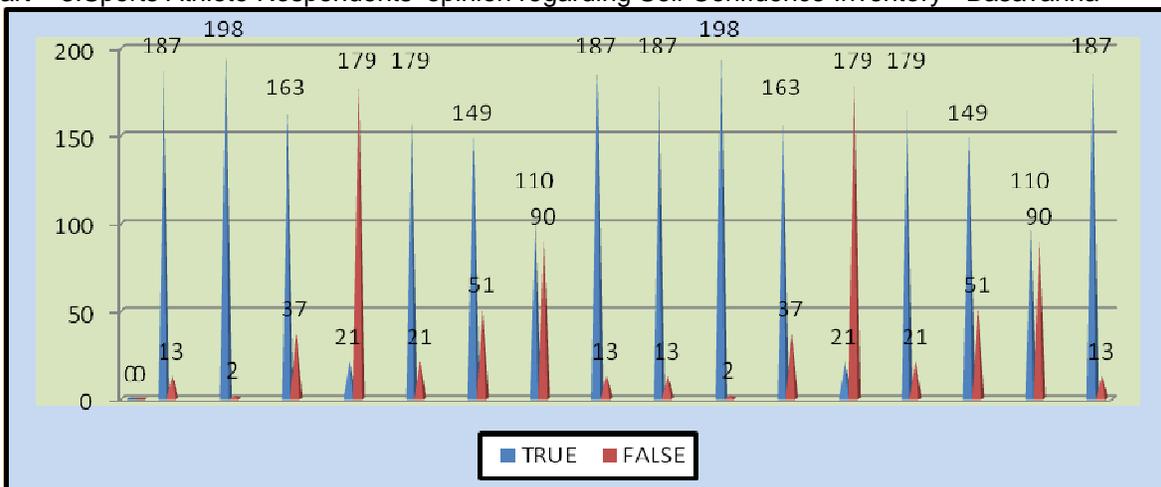


Source: Field Survey.



Source: Field Survey.

Chart – 3: Sports Athlete Respondents' opinion regarding Self Confidence Inventory - Basavanna



Source: Field Survey.

Results:

chart-1 deals with the opinion of the respondents' about Self Confidence Inventory – Basavanna. More number of 91% of total respondents are strongly agree with the 'If have several times given up doing a thing because I thought too little of my ability and 17 (9%) of the sports athlete did not accept to this statement. Majority of 89% respondents are accepted to the statement of 'No one someone to understand me', and small number of that is 11% (22) of the respondents are not agreeing with this statement. About 81% of the respondents are satisfied with the statement of 'I need someone to push me through the things', however, 37 (19%) of the respondents are in negative manner of this statement. Majority 89% of total respondents are not happy with the 'Life is a strain for me much of the time' and 11% of the respondents are not agreeing with this statement. About 70% respondents are accepted to the statement 'I have had blank spells in which my activities were interrupted and did not know what was going around me' and more number of respondents that is 30% are not satisfied with this. Majority 75% of the respondents are happy with 'I am worried about sex matters' and 25% of the respondents are not happy with this. 79% of the sports athletes are positive towards 'I have periods of such great restless that I cannot sit long in a chair' and 21% of are not agreed with this statement. About 56% of the respondents are having opinion on 'I refuse to play some games because I am not good at them' and 44% of the sports athletes are not happy with this. Lastly, sports athlete respondents are satisfied about 68% and remaining that is 32% are not satisfied with 'I find it hard to keep my mind on a task or job'.

Chart-2 depicted with the opinion of the respondents' about Self Confidence Inventory – Basavanna. More number of 85% of total respondents are strongly agree with the 'I seem to be about a smart others around me and 29 (15%) of the sports athlete did not accept to this statement. Majority of 83% respondents are accepted to the statement of 'I usually feel well and strong', and small number of that is 17% (33) of the respondents are not agreeing with this statement. About 77% of the respondents are satisfied with the statement of 'I think too much over everything', however, 46 (23%) of the respondents are in negative manner of this statement. Majority 82% of total respondents are not happy with the 'My daily life is full of things than keep me interested' and 18% of the respondents are agree (true) with this statement. The above table evident that majority 90% of the sports athletes are accepted (true) with 'I am certainly lacking in self-confidence' and remaining that 10% are not agreed with this statement. 75% of the sports respondents are say true towards 'almost always I find myself worrying about something or the other' and slight number that is 25% (51) are say false to above stated statement. About 95% of the athletes are agree (true) with 'I have often lost good chances because I would make up my mind soon enough', and less number that is 5% are say there opine 'False'. More number 80% of the respondents are say true regarding 'I spend much of the time worrying over the future', and 39 (20%) of the respondents are not satisfied with this statement. Lastly, 76% of the respondents of sports athlete happy (true) with 'I do not tire quickly', 47 (24%) of the sports athletes are unhappy with stated statement.

Chart-3 show that the opinion of the respondents' about Self Confidence Inventory – Basavanna. More number of 93% of total respondents are strongly agree (true) with the 'I think I have an attractive personality and 13 (7%) of the sports athlete did not accept (false) to this statement. Majority of 99% respondents are accepted (true) to the statement of 'I do not think too long over my problems', and small number of that is 1% (2) of the respondents are not (false) agreeing with this statement. About 81% of the respondents are satisfied with the statement of 'I have feeling of hopelessness', however, 37(19%) of the respondents are in negative manner of this statement. Majority 89% of total respondents are not happy (false) with the 'I cannot express my emotions freely' and 11% of the respondents are agree (true) with this statement. The above table evident that majority 75% of the sports athletes are accepted (true) with 'I am a responsible person' and remaining that 25% are not agreed (false) with this statement. 55% of the respondents sports athlete are say 'true' towards 'Generally I quite sure of myself' and 45% are say 'false' to this statement. 93% of the sports athletes are true response regarding 'Usually I am dissatisfied with myself' and small number that is 7% (13) say 'false' this statement. 93% of the sports respondents are saying 'true' to 'I have enough faith in myself' and 13% are saying that statement is 'false'. Majority 99% of the respondents are accepted to 'I have the feeling that I am just not facing things' and 1% are say 'false' to this statement. 81% of the athletes are accepted (true) to 'I have enough faith in myself' and

19% of the respondents are said 'false' this statement. More number 89% of the respondents are not agreed (false) opinion towards 'I am often in low spirits' and 11% only agreed to this statement. Majority 75% of the respondents are say 'true' regarding 'I am often helpless' and 25% are shared their opine is 'false' to this statement. About 55% of the sports athletes' respondents are accepted (true) with 'I am often disorganized' and slight number 45% of the sports respondents are unhappy with this statement. Lastly, 93% of the sports respondents are accepted (true) towards 'I can usually make up mind and stick to it' and only 7% of the respondents athlete did not agreed with this statement.

Findings Of The Research Study –

The researchers come with major findings of his research study which highlights some idea about the point the pattern of self-confidence inventory in growth path. The following are the main findings of the study are as under –

More number of 91% of total respondents are strongly agree with the 'If have several times given up doing a thing because I thought too little of my ability and 17 (9%) of the sports athlete did not accept to this statement. Majority of 89% respondents are accepted to the statement of 'No one someone to understand me', and small number of that is 11% (22) of the respondents are not agreeing with this statement.

About 81% of the respondents are satisfied with the statement of 'I need someone to push me through the things', however, 37 (19%) of the respondents are in negative manner of this statement. Majority 89% of total respondents are not happy with the 'Life is a strain for me much of the time' and 11% of the respondents are not agreeing with this statement.

The study highlights about 70% respondents are accepted to the statement 'I have had blank spells in which my activities were interrupted and did not know what was going around me' and more number of respondents that is 30% are not satisfied with this. Majority 75% of the respondents are happy with 'I am worried about sex matters' and 25% of the respondents are not happy with this.

79% of the sports athletes are positive towards 'I have periods of such great restless that I cannot sit long in a chair' and 21% of are not agreed with this statement. About 56% of the respondents are having opinion on 'I refuse to play some games because I am not good at them' and 44% of the sports athletes are not happy with this. Lastly, sports athlete respondents are satisfied about 68% and remaining that is 32% are not satisfied with 'I find it hard to keep my mind on a task or job'.

More number of 85% of total respondents are strongly agree with the 'I seem to be about a smart others around me and 29 (15%) of the sports athlete did not accept to this statement. Majority of 83% respondents are accepted to the statement of 'I usually feel well and strong', and small number of that is 17% (33) of the respondents are not agreeing with this statement.

The study reveals about 77% of the respondents are satisfied with the statement of 'I think too much over everything', however, 46 (23%) of the respondents are in negative manner of this statement. Majority 82% of total respondents are not happy with the 'My daily life is full of things than keep me interested' and 18% of the respondents are agree (true) with this statement.

The study also evident that majority 90% of the sports athletes are accepted (true) with 'I am certainly lacking in self-confidence' and remaining that 10% are not agreed with this statement. 75% of the sports respondents are say true towards 'almost always I find myself worrying about something or the other' and slight number that is 25% (51) are say false to above stated statement.

About 95% of the athletes are agree (true) with 'I have often lost good chances because I would make up my mind soon enough', and less number that is 5% are say there opine 'False'. More number 80% of the respondents are say true regarding 'I spend much of the time worrying over the future', and 39 (20%) of the respondents are not satisfied with this statement. Lastly, 76% of the respondents of sports athlete happy (true) with 'I do not tire quickly', 47 (24%) of the sports athletes are unhappy with stated statement.

More number of 93% of total respondents are strongly agree (true) with the 'I think I have an attractive personality and 13 (7%) of the sports athlete did not accept (false) to this statement.

Majority of 99% respondents are accepted (true) to the statement of 'I do not think too long over my problems', and small number of that is 1% (2) of the respondents are not (false) agreeing with this statement. About 81% of the respondents are satisfied with the statement of 'I have feeling of hopelessness', however, 37(19%) of the respondents are in negative manner of this statement.

The study found that 89% of total respondents are not happy (false) with the 'I cannot express my emotions freely' and 11% of the respondents are agree (true) with this statement. The above table

evident that majority 75% of the sports athletes are accepted (true) with 'I am a responsible person' and remaining that 25% are not agreed (false) with this statement. 55% of the respondents sports athlete are say 'true' towards 'Generally I quite sure of myself' and 45% are say 'false' to this statement.

93% of the sports athletes are true response regarding 'Usually I am dissatisfied with myself' and small number that is 7% (13) say 'false' this statement. 93% of the sports respondents are saying 'true' to 'I have enough faith in myself' and 13% are saying that statement is 'false'.

Majority 99% of the respondents are accepted to 'I have the feeling that I am just not facing things' and 1% are say 'false' to this statement. 81% of the athletes are accepted (true) to 'I have enough faith in myself' and 19% of the respondents are said 'false' this statement.

Sports athletes about 89% of the respondents are not agreed (false) opinion towards 'I am often in low spirits' and 11% only agreed to this statement. Majority 75% of the respondents are say 'true' regarding 'I am often helpless' and 25% are shared their opine is 'false' to this statement. About 55% of the sports athletes' respondents are accepted (true) with 'I am often disorganized' and slight number 45% of the sports respondents are unhappy with this statement.

93% of the sports respondents are accepted (true) towards 'I can usually make up mind and stick to it' and only 7% of the respondents athlete did not agreed with this statement.

Conclusion:

Sports in the present world have become extremely competitive. It is not the mere participation or practice that brings out victory to an individual. All the coaches, trainers, physical education personnel and doctors are doing their best to improve the performance of the players of their country. More specifically, individuals involved with organized sports now understand that, for athletes to perform at their peak level of efficiency, they must possess and use a number of psychological skills. The study analyses and through some light on parameters which is most based on self-confidence inventory prefunded by Basavanna which gives more potential to sports athletes. The study conclude that sports athletes are compulsory implemented the self-confidence inventory of different parameters which more strength and stability in provided in each and every sports events and which are play a huge role in real life. Therefore, self-confidence inventory is very much important to all sports athletes in sports life.

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Comparison of gender health status and fitness

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Abstract :

Regular physical activity, fitness, and exercise are critically important for the health and well being of people of all ages. Research has demonstrated that virtually all individuals can benefit from regular physical activity, whether they participate in vigorous exercise or some type of moderate health enhancing physical activity. Even among very old adults, mobility and functioning can be improved through physical activity. The 45 year old or even 75 year old, who become active even after years of sedentary living, experience the same lower risk of death and the same added years of life as the man or woman who remains habitually active all along.

Introduction :

More than 60% of the world's population is not physically active at levels that promote health. In concert with other behavioral risk factors for cardiovascular disease (CVD), sedentary lifestyles exert a heavy medical and economic toll on individuals and societies. Physical activity lowers all cause mortality, reduces several risk factors for cardiovascular disease, and is a category two intervention that can halve cardiovascular disease risk. The benefits extend across a wide spectrum of structured as well as lifestyle physical activity levels. Models and programs aimed at translating physical activity's promise in cardiovascular prevention have been assessed, but results have been generally disappointing. A pragmatic strategy based on the "stages of change" or trans theoretical model can be effective. It incorporates self efficacy and individual initiatives, both crucial ingredients necessary to surmount the inevitable hurdles on the path towards physically active lifestyles. In this context researcher was of particular interest in examining the health status of individuals who are intrinsically motivated to indulge themselves in some or the other form of physical activity and compare them on the basis of gender.

Methodology :

All together 248 fitness enthusiasts who were involved in self motivated regular fitness workouts in parks, stadiums, playground and other public areas of Kalaburagi city, Karnataka served as subjects for this study. They were selected on the basis of random proportional sampling to give equal representation to male (N=124) and female (N=124) participants and their age ranged between 45 to 60 years. To measure their health status, body mass index (BMI) involving height in meters and weight in kgs was made use. For this purpose, stadiometer to measure height and standardized electronic weighing scale for measuring weight were used. Further a self structured questionnaire was administered in order to obtain their demographic information, personal details, frequency and duration of physical activities etcetera. In order to collect necessary information the researcher along with a trained helper was personally present on time at the locations mentioned above. Prior to his visit he had made all essential arrangements related data collection. The researcher requested subjects to assemble in a particular place and at the outset made the intentions of the study clear. He requested their cooperation for data collection and sought honest opinion on questionnaire.

Analysis of Data :

The raw data obtained on height and weight was statistically treated with the formula $BMI = \frac{\text{weight in kgs}}{(\text{height in mtrs})^2}$ to obtain BMI of each subject. In order to examine the hypothesis of the study descriptive statistics including mean, standard deviation and 't' test for independent variables were utilized. Graphical representation of data was also made where ever required. Results of the study are given in the following tables. Table 1 provides information on BMI of both male and female participants.

Table -1 Mean, SD and Normative response of male group (N=124) on BMI

| Mean | Standard Deviation | Normative Response |
|-------|--------------------|--------------------|
| 28.52 | 4.74 | Over weight |

From table 1 it is evident that the mean score of male group in terms of BMI is 25.82 4.74. This score when applied to the norms constructed by National Institute of Health reveals that the male group fails in the category of over weight. Similarly, information on BMI of female participants is presented in table 2.

Table -2 Mean, SD and Normative response of female group (N=124) on BMI

| Mean | Standard Deviation | Normative Response |
|-------|--------------------|--------------------|
| 24.45 | 3.51 | Over weight |

From table 2 it is evident that the mean score of male group in terms of BMI is 24.45 3.51. This score when applied to the norms constructed by National Institute of Health reveals that the female group fails in the category of over weight. Similarly, information on BMI of female participants is presented in table 3.

Table -3 Mean, SD and Normative response of female group (N=124) on BMI

| Sl.No. | Gender groups | Mean | SD | 't' score |
|--------|---------------|-------|------|-----------|
| 1. | Male group | 25.82 | 4.74 | 2.697* |
| 2. | Female group | 24.45 | 3.51 | |

*Table value required for significance at .05 levels is 1.645

Above table describes the fact that there is significant difference between two groups in terms of body mass index. The 't' ratio was tested for significance at .05 level of confidence. The tabulated 't' value required for significance was 1.645. As the obtained 't' value is higher than the tabulated value it can be concluded that the mean scores of two groups differ significantly.

Findings :

Results of the present study indicates that the male group needs due attention to improve their health status and neglect of which will lead to serious and life threatening health problems. In spite of the fact that the group is actively involved in some sort of physical activity, their health seems to be deteriorating. Reasons for this may be attributed to low intensity of workout, low volume of workout, irregularity to workout, lifestyle so on and so forth. What ever may be the reason, it is high time for these urban male fitness enthusiasts to sit back and think of their exercise regimen seriously. A professional's help can also be sought in this direction which can be handy.

Conclusion :

On the basis of the findings of the present study, it can be concluded that the female fitness enthusiasts in urban setting are been benefited optimally. On the other hand, their male counterpart are on the verge or facing serious health problems associated with cardio vascular, respiratory and associated problems including hypertension, diabetes etc.

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Implication of psychological on the performance of sports persons

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Abstract :

The type of aggression and locus of control witnesses in sport may be categorized in to athletes spectators aggression or hostility. The competitive nature of sports, perhaps is the major reason for the athletes behaving aggressive and locus of control specially in contact sports where the instinctive tendencies of offense and defense behaviour.

Introduction :

Two factors must be present in order for a behavior to be labeled aggression and locus of control. The behaviour must be aimed at another human being with the goal of inflicting physical harm. Locus of control is an important aspect of the behavior. For the practicing school psychologist or teachers, this is apt to bring to mind a variety of ideas. It is structure of the actual process of performing, in other words, it is the physical, physiological, mechanical physic of the motor action or actions done during the competition. Motor action consists of movements, which are controlled and regulated by the central nervous system.

Methodology :

Keeping major objectives of the study in view, appropriate design is adopted. The study was conducted on 1000 sports persons selected from various colleges of Gulbarga. The criterion of selection was participation in sports at least at inter collegiate level. The sample so selected was administrated the scales, viz aggression and locus of control. This is done to examine the differences between the sample sub groups on psychological factors and subsequently the sample was categorized based on the scores on psychological factors to access impact of independent factors on the sports performance of the respondents.

Findings :

Table – 1 Mean, SD and t-value sports performance in Aggression (N = 1000)

| Aggression | | 100 m | 200 m | 400 m |
|------------|------|----------|----------|----------|
| Low | Mean | 27.9753 | 58.4507 | 111.7253 |
| | SD | 17.9753 | 4.9826 | 8.4507 |
| | SE | ± 1.1365 | ± 0.3151 | ± 0.5344 |
| | N | 250 | 250 | 250 |
| High | Mean | 21.7246 | 48.7658 | 94.2405 |
| | SD | 1.7246 | 3.4810 | 6.2016 |
| | SE | ± 0.1090 | ± 0.2201 | ± 0.3972 |
| | N | 250 | 250 | 250 |
| t-value | | 1.742* | 1.824* | 1.646* |

* Significant at 0.05 level

Thus the higher performance is found to be determined by the aggression that a sportsman possess and express. The aggression is therefore, an essential factor in any sports competition. As a psychological factor the aggression of sportsman helps in the achievement of higher athletic scores. Therefore it can be said the aggression in sports has an instrumental value in enhancing the sports performance.

Table – 2 :Mean, SD and t-value sports performance in Locus of Control (N = 1000)

| Locus of control | | 100 m | 200 m | 400 m |
|------------------|------|----------|----------|----------|
| Internal | Mean | 22.2712 | 501470 | 966830 |
| | SD | 15.9313 | 3.5294 | 6.1601 |
| | SE | ± 1.0075 | ± 0.2232 | ± 0.3896 |
| | N | 250 | 250 | 250 |
| External | Mean | 27.0748 | 56.5646 | 108.3843 |
| | SD | 1.7108 | 4.6938 | 7.8741 |
| | SE | ± 0.1082 | ± 0.2968 | ± 0.4980 |
| | N | 250 | 250 | 250 |
| t-value | | 1.724* | 1.684* | 1.695* |

* Significant at 0.05 level

This clearly shows that that locus of control has something to do in the increment in the performance of the players.

Conclusion :

The study also assessed the influence of the independent variables like aggression, locus of control on the three motor test of 100 meters, 200 meters and 400 meters. It revealed the fact that all these independent variable have significant influence on the sports performance. The study categorically showed that all the factors have strong correlation with the sports performance in all the three events.

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Personality and well being of the sport person

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Abstract :

In a broad way we may state that psychology deals with two aspects of the problems of behavior. There is on the one hand the interest in the general laws of human behavior and experience. Sports performance has been found to be related to some personality variable. Extraversion, neuroticism psychotics are among the variables which influence sports performance along with well being.

Introduction :

Personality is defined as distinctive patterns of behaviour (including thoughts and emotions) that characterize each individual's adaptation to the situations of his or her life. Personality is shaped by inborn potential as modified by experiences common to the culture and sub-cultural group (such as sex roles) and by the unique experiences that effect the person as an individual. Psychological well-being is a very subjective term but from all the research that has been carried out, the term is used throughout the health industry as kind of a catch all phrase meaning contentment, satisfaction with all elements of life, self actualization (a feeling of having achieved something with one's life).

Methodology :

Statement of the problem : To study the personality and psychological well-being of the sports persons.

Objectives : To study the psychological well being of sports persons. To assess the effect of personality dimensions on the psychological well being of sports persons. To study the effect of demographic factors (age and sex) on the well being of the sample.

Independent Variables :

- 1) Personality 2) Age 3) Sex

Dependent Variables : Psychological well being

Sample :

The sample of the study consists of 500 sports persons selected from various colleges. The students who have participated in inter university level are considered as sports person. The sample was matched for age and gender. The personality inventory and psychological well being scale were administered to the sample. The dimensions of personality like psychoticism, extraversion and neuroticism were considered in the present study.

Analysis :

The major objective of the present research is to assess the effect of personality dimension on psychological well being of sports persons selected from various colleges from Gulbarga University jurisdiction. The student who have participated in inter university competitions in any event, are considered as sports persons. Thus there are 500 students players of two age groups (18-21) and (22-25) and gender (male and female).

Table Showing 'r' value between variables (N=500)

| Variables | t-value |
|-----------------------------------------|---------|
| Age x Psychological well being | 0.613** |
| Sex x Psychological well being | 0.534** |
| Extroversion x Psychological well being | 0.529** |
| Neuroticism x Psychological well being | 0.314** |
| Psychoticism x Psychological well being | 0.416** |

Table shows the 'r' values / correlation / coefficient between the variable of the study. It can be observed that there is a significant correlation between age and psychological well being (PWB) 0.613, between sex and psychological well being (PWB) 0.524 and extroversion and psychological well being (PWB) 0.529, Neuroticism and psychological well being (PWB) 0.314, and also in psychoticisms and PWB 0.416. All the 'r' values are significant beyond the 0.01 level. This shows that there is significant correlation between the independent variables and psychological well being (PWB) of the sample.

Conclusion :

There is significant effects of personality on the psychological well being (PWB) of the sample. In the dimension of extra version, neurotic, psychotocism and well being between the males and females are found to be more in males. The lower age group have displayed higher in personality dimension and well being then the higher age.

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Effect of Aerobic Exercises and Yogasanas on Strength of Primary School Children's

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Abstract

The purpose of investigator is to compare Strength. Performance of "Effect of Aerobic Exercises and Yogasanas on Strength of Primary School Children's." To execute the investigation selected 50 Experimental Group and 50 Control Group. The total sample consists 100 Girls and the Age Levels was 09 to 12 Years. The Control Group showing there is no significant difference of the Pre-test and Post-test as well Mean, Standard Deviation and t- value. The mean Score of Pre-test 2.69, Post-test 3.12, Standard Deviation Pre-test. 74, Post-test.82 The Variables of the study clearly shows that the impact of Aerobic Exercises and Yogasanas increase the Strength dose not play any role for Measure by the Dips. The t- value is -1.92, this indicate there is no significant difference between Pre-test and Post-test of the Subject. KEY WORDS: Introduction, Aerobic Exercises and Yogasanas, Strength etc.

Introduction

Aerobic Exercises is sometimes known as cardio-exercise that requires pumping of oxygenated blood by the heart to deliver oxygenated blood by the heart to deliver oxygen to working muscles. Aerobic exercises stimulate the heart rate and breathing rate to increase in a way that can be sustained for the exercises session.

Aerobic exercises can become anaerobic exercises if performed at a level of intensity that is too high. Aerobic exercise not only improves fitness; it also has known benefits for both physical and emotional health. Aerobic exercise can help prevent or reduce the chance of developing some cancers, diabetes, depression, cardiovascular disease, and osteoporosis. An aerobic exercise plan should be simple, practical, and realistic. Specific equipment (such as cardio machines) may be used but is not necessary for successful aerobic exercise. Imagine that you're exercising.

You're working up a sweat, you're breathing hard, your heart is thumping, blood is coursing through your vessels to deliver oxygen to the muscles to keep you moving, and you sustain the activity for more than just a few minutes. That's aerobic exercise (also known as "cardio" in gym lingo), which is any activity that you can sustain for more than just a few minutes while your heart, lungs, and muscles work overtime. In this article, I'll discuss the mechanisms of aerobic exercise: oxygen transport and consumption, the role of the heart and the muscles, the proven benefits of aerobic exercise, how much you need to do to reap the benefits, and more.

The Importance of Aerobic

Increases the body muscle strength and elasticity.

Increases the quality of sleep that refreshes you early next morning.

Helps to decrease chronic diseases like heart disease and hypertension.

Aerobics intensify the resistance fatigue and gives you more vigor and energy.

Recovers your mood and decreases the depression, stress and anxiety.

The Benefits of Aerobic

The best benefit from callisthenic exercises is that you will understand everything about your own physical body and its limits.

Strengthening the muscles involved in respiration, to facilitate the flow of air in and out of the lungs.

Strengthening and enlarging the heart muscle, to improve its pumping efficiency and reduce the resting heart rate, known aerobic conditioning.

Improving circulation efficiency and reducing blood pressure.

Increasing the total number of red blood cells in the body, facilitating transport of oxygen.

Yogasanas



The word yoga derived from Sanskrit word 'YUJ' meaning to yoke, join or unite. This implies joining or integrating all aspects of the individual body with soul—to achieve a happy, balanced and useful life, and spiritually, uniting the individual with the supreme.

Yoga is one of the most ancient cultural heritages of India. The word yoga in Sanskrit means “to unite”, and so yoga can be said to connote a unitive discipline.

According to Swami SatyaandSaraswathi “Yoga is not an ancient myth buried in oblivion. It is the most valuable inheritance of the present. It is the essential need of today and the culture of tomorrow”.

The Importance of Yogasanas

Yoga in Daily Life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. The main goals of “Yoga in Daily Life” are Physical Health, Mental Health, Social Health, Spiritual Health, Self-Realization or realization of the Divine within us. These goals are attained by Love and help for all living beings, Respect for life, protection of nature and the environment, A peaceful state of mind, Full vegetarian diet, Pure thoughts and positive lifestyle, Physical, mental and spiritual practices, Tolerance for all nations, cultures and religions. Yogic techniques are known to improve one's overall performance. Pranayama is an important, yet little known part of Yoga.

The Benefits of Yogasanas

Improves health, Gives mental strength, Improves physical strength

Protection from injury, Detoxifies the body. Weight loss, Strength

“The extent to which muscles can exert force by contracting against resistance. (holding or restraining an object or person)”

The Importance of Strength

Strength is a fundamental piece of any triathlete's training program and should never be neglected.

Strength training in the gym is also encouraged as this can build solid strength and power in the foundation of a muscle in a shorter period of time. I am a strength based athlete and find that it is imperative to support this strength with a structured strength training plan in my program.

The Benefits of Strength

Strength training helps keep the weight off for good.

Strength training protects bone health and muscle mass.

Strength training makes you stronger and fitter.

Strength training helps you develop better body mechanics.

Strength training plays a role in disease prevention.

Methodology

The purpose of investigator is to compare Strength. Performance of “Effect of Aerobic Exercises and Yogasan on Strength of Primary School Children’s.” To execute the investigation selected 50 Experimental Group and 50 Control Group.

Sample: The total sample consists 100 Girls and the Age Levels was 09 to 12 Years.

Aerobic Exercises ,V-Step ,L-Step ,Zig-Zag Step ,Left Side Right Side Movement ,Yogasans Suryanamaskar,Garudasana,PadmasanaPaschimottanasana

Analysis And Interpretation Of Data

The Effect of 6 Weeks Aerobic Exercises and Yogasana training on Strength Physical variables of Primary school students and training was imparted to Experimental Group and Control Group Performance was recorded at Pre-test and Post-test and Interpretation of data has done as follows.

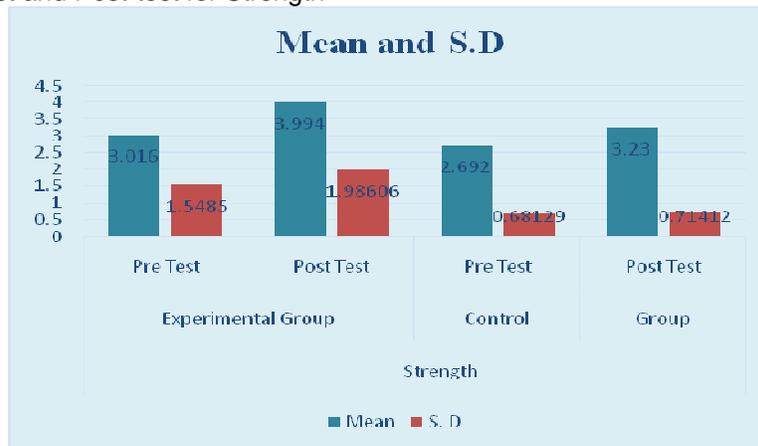
Table Shows Mean, SD and t-value of Strength [Dips] Between Experimental Group and Control Group Pre-test and Post-test

| Variable | Group | Test | Mean | S. D | Df | t-value | P-value | Significant |
|----------|--------------------|-----------|--------|---------|----|---------|---------|-------------|
| Strength | Experimental Group | Pre Test | 3.0160 | 1.54850 | 24 | 2.286 | .021 | S |
| | | Post Test | 3.9940 | 1.98606 | | | | |
| | Control Group | Pre Test | 2.6920 | .68129 | 24 | -1.92 | .060 | NS |
| | | Post Test | 3.2300 | .71412 | | | | |

*The level of significant is 0.05, Table value is 1.96

The Experiment Group showing the significant difference of the Pre-test and Post-test as well Mean, Standard Deviation and t- value. The mean Score of Pre-test 3.01, Post-test 3.98, Standard Deviation Pre-test 1.50, Post-test 1.35, The Variables of the study clearly shows that the impact of Aerobic Exercises and Yogasana increases the Strength Measure By the Dips. The t- value is 2.28, this indicate the level of significant difference between Pre-test and Post-test of the Subject. The Control Group showing there is no significant difference of the Pre-test and Post-test as well Mean, Standard Deviation and t- value. The mean Score of Pre-test 2.69, Post-test 3.12, Standard Deviation Pre-test .74, Post-test .82 The Variables of the study clearly shows that the impact of Aerobic Exercises and Yogasana increase the Strength dose not play any role for Measure by the Dips.. The t- value is -1.92, this indicate there is no significant difference between Pre-test and Post-test of the Subject.

Showing the Pre-test and Post-test for Strength



The above figure clearly indicates that the six weeks Aerobic Exercises and Yogasana training performance is drastically improved Strength of the Experimental Group.

Summary

The purpose of this study was to examine the effects of Aerobic Exercises and Yogasanas training improve the Strength of Primary School Children's. Pre-test as been conducted then the six weeks aerobic exercises and Yogasana training program organized to the Primary school children, after the six weeks training post test conducted the researcher found that the effect of motor ability level the post-test result indicates significant improvement in the motor ability level.

Conclusion

On the basis of the result the following conclusions were drawn, the six weeks Aerobic Exercises and Yogasana training improve the Strength of Primary School Children's.

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Physical Activity Levels among School Teachers in relation to their Chronological Age

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Abstract:

The present study was designed to compare the level of physical activity among young, middle and old age male and female school teachers. A sample of three hundred (N=300) government (N=150) and private (N=150) school teachers from union territory of Chandigarh were selected as subjects for the present study. International Physical Activity Questionnaire (IPAQ) constructed by Craig et al. (2003 revised in 2005) was administered to obtain the information related to their physical activity status in the form of MET Minutes/Week. The one way Analysis of Variance (ANOVA) was employed to find the significance of differences among young, middle and old age school teachers on the variable physical activity. The level of significance was set at 0.05. The results of the study revealed that the young, middle and old age school teachers found to be equally active. However, while comparing the mean values of all the groups, the middle age group of school teachers demonstrated better physical activity status than young and old age school teachers.

Introduction:

Physical activity is categorized as a positive leisure activity, which is linked to many health benefits. Physical activity is defined as any movement between skeletal muscles that exerts energy. It is categorized as low, moderate, vigorous and strength training activities and must be consecutive for at least 20 minutes (Sliter & Sliter, 2014).

Living organisms are naturally active and start the body movements from the birth. 'On order for man to succeed in life, God provided him with two means, education and physical activity. Not separately, one for the soul and the other for the body but for the two together. With these two means, men can attain perfection' (Plato, fourth century BC as cited in Strhole, 2009).

Physical activity is defined as any bodily movement produced by skeletal muscles resulting in energy expenditure above the basal level (Cavill et al., 2001).

Regular physical activity of moderate intensity namely walking, cycling, or playing sports is very beneficial for health. Engaging in regular physical activity is one of the best ways to improve general health. Physical activity has become the prime health indicator where it plays an essential role in enhancing physical fitness and health related behaviour that could lower the risk of morbidity and mortality from diseases (Sundland et al., 2008).

The recommendations for physical activity have shifted since the decade of 1970s: in the 1990s the focus of public health recommendations was on 3–5 exercise bouts per week (American College of Sports Medicine 1978 & 1990).

Pate et al. (1995) recommended physical activity of moderate intensity for at least 30 minutes on most of the days if not every day during the week and besides 'classical' exercise training, everyday physical activity such as brisk walking, gardening or window washing is regarded as health enhancing physical activity.

As per the recommendations of World Health Organization (2010) an individual should participate at least 150 minutes of moderate-intensity physical activity throughout the week, or at least 75 minutes of vigorous-intensity physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity. For additional health benefits, one should increase moderate intensity physical activity to 300 minutes per week, or equivalent. Those with poor mobility should perform physical activity to enhance balance and prevent falls on 3 or more days per week. Muscle-strengthening activities should be performed involving major muscle groups on 2 or more days in a week. In spite of it, the leisure time and workplace physical activity level have continued to decrease in high-income countries. Transportation Research Board Institute of Medicine (2005) indicated that physical activity levels have declined sharply over the past half-century because of reduced physical demands of work, household management, and travel, together with increased sedentary uses of free time. Laborsaving technological innovations have brought comfort, convenience, and time for more leisure activities.

It is very obvious that mechanization and computerization at work have increased workplace physical inactivity (Sallis, 2011). A report of the study conducted by Talabi et al. (2010) revealed that physical activity would not be longer part of daily lives of people in Nigeria. It was also reported that cars have substituted walking, lifts have replaced the stairs, washing machines have replaced manual laundry, mobile communication and various remote controls have taken place of the general movements of people. The effect of these technological advancements placed individuals in a state of inactivity and sedentary lifestyle with concomitant increase in diseases and subsequent fatalities.

Many factors are responsible in decreasing the physical activity level of people. The age is one of the significant factors which may influence the physical activity level of an individual. The increasing age may decrease the physical activity level of an individual as the physiological capacity of an individual also decreases. Therefore, an attempt has been made by the researchers to identify the age differences in physical activity among young, middle and old age groups of school teachers through the present study.

Methodology: The purpose of the present study was to examine the level of physical activity among young, middle and old age school teachers. A sample of three hundred (N=300) government (N=150) and private (N=150) school teachers from union territory of Chandigarh participated as subjects for the present study. The age of the subjects was ranged between 25 to 55 years. Further, the subjects were divided into three categories on the basis of their chronological age i.e. Young (25 to 35 Years), Middle (36 to 45 years) and old age (46 to 55 years). The International Physical Activity Questionnaire (IPAQ) developed by Craig et al. (2003 revised in 2005) was used to collect the information related to their physical activity status in the form of MET Minutes/Week. The Analysis of Variance (ANOVA) was applied to identify the significance of differences among young, middle and old age school teachers on the variable physical activity. The level of significance was set at 0.05. Descriptive statistics was also carried out.

Results:

Descriptive statistics with regard to physical activity among young, middle and old age school teachers have been presented in table-1.

Table-1

Descriptive Statistics with regard to Physical Activity among Young, Middle and Old Age School Teachers

| Variable | Group | N | Mean | Std. Deviation |
|-------------------|------------|-----|---------|----------------|
| Physical Activity | Young Age | 100 | 1344.04 | 1330.161 |
| | Middle Age | 100 | 1489.19 | 1380.192 |
| | Old Age | 100 | 1451.23 | 1403.458 |
| | Total | 300 | 1428.15 | 1368.402 |

It is evident from table-1 that the mean values of young, middle and old age school teachers with regard to physical activity were 1344.04 ± 1330.161 , 1489.19 ± 1380.19 and 1451.23 ± 1403.46 respectively. One way Analysis of Variance (ANOVA) results with regard to physical activity among young, middle and old age school teachers have been presented in table-2.

Table-2

One way Analysis of Variance (ANOVA) results with regard to Physical Activity among Young, Middle and Old Age School Teachers

| Variable | | Sum of Squares | Df | Mean Square | 'F' Values | p-value (Sig.) |
|-------------------|----------------|----------------|-----|-------------|------------|----------------|
| Physical Activity | Between Groups | 1133240.36 | 2 | 566620.18 | .301 | .740 |
| | Within Groups | 5.588 | 297 | 1881318.32 | | |
| | Total | 5.599 | 299 | | | |

Significant at 0.05 level

F= 0.05 (2, 297)

Table-2 reveals statistically insignificant difference ($p > 0.05$) among young, middle and old school teachers with regard to physical activity. Therefore, Scheffe's Post hoc test for the multiple comparisons between the paired means has not been applied.

However, while comparing the mean values of young, middle and old age school teachers, it has been found that middle age school teachers were more physically active than their young and old age counterparts.

Discussion:

The findings of the present study indicated that young and old school teachers were less active as compared to middle age school teachers though insignificantly. The outcomes of the study might be due to the fact that the youngsters are more acquainted with technology, use more technological means such as elevators and other modes of transportation and spend more time sitting on computers rather than outdoor activities. However, the findings of Brito et al. (2012) revealed contradictory results that subjects having age ranged from 31 to 42 years had reported with more prevalence of low physical activity (19.5%) and less prevalent in age group of 55 to 66 (5.7%). The findings of Monteiro et al. (2003) revealed that overall physical activity level found to have been reduced between male and female subjects as their age reached the 40-45 years and both male and female were reported less active than the Youngers. Physical activity tends to decrease sharply among older after the age of 60 (Milanovic et al., 2014). However, the present study has classified the teachers in different age categories i.e. young (25 to 35 Years), middle age (36 to 45Years) and old age (46 to 55 Years). Due to the dissimilarities of age groups in previously conducted researches with present study, it is not possible for the investigators to compare the groups accurately. However, differences were observed in physical activity levels in relation to age in previously conducted studies as ageing tends to deteriorate the physical capacities.

Conclusions: The middle age school teachers were physically more active as compared to their young and old age counterparts. Similarly, the old age school teachers were found more physically active as compared their young age counterparts.

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Role Of Information Technology In Sports Science

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Abstract:

The advanced information technology enhances the sports activities and improves performance of a sportsman, molding their motivational factors. It also develops the desired behavior in a sportsman by preparing future generation physically as well as mentally strong, active and energetic. Information technology promotes the development of sports science and sports science development cannot be separated from the information technology. Information technology in sport is a discipline that has its goal in combining the theoretical as well as practical aspect and methods of informatics and sports science. The use of data and media, the design of models, analysis of systems etc. requires the supports of suitable tools and concepts which are available in information technology. This paper includes the role of information technology in the Physical Education, training and management. It also analyzes the theoretical and practical basis for the role of information technology in sports.

Keywords: Information Technology, Sports, Knowledge, Training, Management

Introduction

Information technology means using of computer and its application for the production, storage, processing, distribution and exchange of information. IT uses computer technology and internet information and communication. In addition of these it also uses radio, TV, Video, CD player and DVD, telephone, mobile etc at the top databases. Sports are necessary for mental health and physical fitness. It builds up overall personality of a person and makes him intellectually and physically strong, confident, having cheerful behavior. Sports develops other social qualities like leadership, confidence, loyalty, balanced behavior, sustainability during failures, continuous learning, disciplined etc. which are key pillars of a civilized society and development of a nation in turn. So sports must be a part of a daily routine.

Application Of Information Technology In Sports

Computer is used in sports each and every day. It helps sports organization to achieve their goals. Storing and watching video

Computers are used to store and watch videos in sports. There is a great need of videos in sports. Because players watch other players playing style from different angles to learn them through videos or they want to see their own past performances in order remove drawbacks from them or they can watch live matches etc. We can store all videos in one place rather than storing them in different cassettes.

Statistical data storage

Statistical data is very important for sports. Team players, coaches, public all want to know past performance of team players. So computer can be used to record statistical data in different attractive ways.

Equipment Development

Designing the sports equipment by using advance technique like CAD and virtual design and testing play a vital role of computer in sports. Safety is a very important issue in sports today. To minimize injuries of player's equipment developer have used computers to develop safer equipment. For example helmet company Riddell designed a new football helmet for national football league. They used a variety of technological programs to design a helmet that would be able to absorb the constant impact and limit damage to the head and neck area. The same research can be used in many sports as hockey and cricket etc to improve the safety of athletes.

Sports Media

Computer plays a major role in how well media outlets cover their respective sports. Writers use various computer programs to make their writing attractive.

Computer in Scouting

Computers play a part in scouting players on nearly all professional teams. Since the beginning of the 21st century, new technology has been developed by which scouts use computers to put in scouting information easily and speedup the process of evaluating players.

Sports Training

Trainer for sports teams can put a player's height, weight, and body model into a computer and develop a training program that best fits her needs. Trainers can also put sensors and equipment onto a player during the training and allowing the computer to register results while the player trains.

Sports Management

In old era only a well trained coach and money can be a good source of managing sports. In the modern time information technology can be used as a source of power to drag sports activities on a desired track. Database will be a right tool in sports management. In case of more complexity and variety of data we can use data warehouse. The knowledge discovery from warehouse can include health details, medical conditions, performance history, favorite technique and winning strategies weakness of sports, achievements etc.

Conclusion

This paper highlights the role of information technology in sports. It covers how computer is used as powerful tool in various aspects of sports science. It emphasizes that the information technology helps sports management, enhanced performance, balanced behavior etc. Therefore information technology helps in refining the sports, desired efficiency, friendly environment etc.

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Parks and Social Development Of The Masses

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Abstract

The present research study was an effort to assess the role of public parks in social development of the masses. All the visitors including teachers, students and parent were taken as a population of the study. For the collection of data, a closed form of questionnaire was used. The developed questionnaire was personally distributed by the researcher among the respondents and collects it back after getting it filed by the respondents. The data collected were tabulated and analyzed by using percentage (%) as statistical tool. After data analysis, it was concluded that public parks play a vital role in social development of the masses. Key terms: Public Parks, Social development, D.I.Khan, KP, Pakistan

Introduction:

The basic mechanism driving social change is increasing awareness leading to better organization. When society senses new and better opportunities for progress it develops new forms of organization to exploit these new openings successfully. The new forms of organization are better able to connect the available social energies, skills and resources to use the opportunities to get the positive results (Tracey, Phillips, and Jarvis, 2011). Development is governed by many factors that influence the results of developmental efforts. There must be a motive that drives the social change and essential preconditions for that change to occur. The motive must be powerful enough to overcome obstructions that impede that change from occurring. Development also requires resources such as capital, technology, and supporting infrastructure (Bendix, 2017).

Social development implies the change in social institutions. Public parks attract the attention of masses toward the positive passage of leisure time and avoided from negative activities. Progress toward an inclusive society, implies that individuals treat each other (more) fairly in their daily lives, whether in the family, workplace, or in public office. Social cohesion is enhanced when peaceful and safe environment within neighborhood and communities are created (Knox and Mayer, 2013)

Awareness of the public about the role of public parks in the social development is the main theme of the study. Keeping in view the benefits of parks the researcher decided to carry a study under the title "surrey regarding the perception of community about the role of park in social development" for which the researcher objective were to identify the benefits of parks in social development, to find out the role of public parks in connection to social interaction in leisure time and to find out the role of park regarding strengthen community.

The researcher concluded that the majority of the population viewed that public parks are the sources play significance role in social development, public park is the main element contributes towards the social interaction, public parks are the best means for the people of society to use their leisure time in proper manner and for the purpose to avoiding the tense environment and parks is very important for society by putting positive impact upon their physiological, psychological and sociological aspect of life. (Low, Taplin, & Scheld, 2009).

At the end the researcher recommended that availability of more parks may be constructed in the society for better socialization and all the facilities must be provided, proper maintenance may be arranged in the parks and equal opportunity may be provided to each and every member of the society to join the parks.

Statement Of The Problem

There are many institutions that play vital role in the social development or socialization of the human being such as mosques, schools and homes (Lawson, 2005). In this connection the public parks play very important role in the socialization of the human being because different types of people visit parks and recreate themselves and enjoy once again the nature in parks and with different types of people and share different types of traditions, customs and other ways of life (Rossman and Schlatter, 2008). Public parks offer visual and psychological relief in the stressful and surrounding of high pace of the cities and contribute to the quality of citizen's life and overall sense of well being but unfortunately majority of the people are unaware about the role of parks in their social development. Therefore the researchers intend to conduct a research study under a title "survey regarding the perception of community about role of parks in the social development among the masses. This study will be prove helpful in attract the attention of people toward recreational parks for enjoy their leisure time in positive manner.

Objectives Of The Study

- To analyze the perception of teachers about the role park in social development.
- To evaluate the perception of parents about the role park in social development.
- To examine the perception of students about the role park in social development.

Significance Of The Study

Scientific inventions provide a lot of time to humanity and as result the men became idle and useless lazy. As we know that empty mind is the devil workshop and when the men become idle he thinks unsocially and disturbed the others. In the mean time parks the areas where the people come out of their houses and its recreation as well as adopt the social values of the society and aware from the problems of each other. The findings of the study will provide a foundation for positive relation and its impact on community. This study will be beneficial for the improvement of people socialization. The study will help the future researchers to make further studies in this area.

Hypothesis Of The Study

Following null hypothesis will be developed and tested.

Ho1 There is no significance difference about the role of part in the social development as perceived by the teachers.

Ho2. There is no significance difference about the role of part in the social development as perceived by the parents

Ho3. There is no significance difference about the role of part in the social development as perceived by the students

Methodology Of The Study

Following methodology will be adopt to reach at certain conclusion

Population of the Study

The population of this particular study will consist of special main in district dikhan.

Sample and Sample Size

It was difficult for the researcher to contact the whole population. So the researcher selected only 300 people from the whole population in which 100 students, 100 teachers and 100 parents by applying available sampling technique.

Tools for Data Collection

For the purpose of data collection the researcher used a close form questionnaire consist of two options i.e. "Yes" and "No.

Mode of Data Collection

The researcher personally distributed the entire questionnaire among the respondents and also collected back, after filled by them.

Data analysis

The collected data was tabulated and analyze by using percentage % for the purpose to reach certain findings and conclusion.

Descriptive Analysis of the Study

Table No.1 Showing the Role of Public parks in positive changes and modification in the behavior of youth

| Yes | % | No | % | Total |
|-----|-----|----|-----|-------|
| 84 | 84% | 16 | 16% | 100 |

The above table shows that 84% of total respondents opined that that Public park bring positive changes and modification in the behavior of youth.While 16% of total respondents do not agreed about the statement

Table No.2 Showing that Parks help in solving of social problem of each others

| Yes | % | No | % | Total |
|-----|-----|----|-----|-------|
| 75 | 75% | 25 | 25% | 100 |

The above table shows that 75% of total respondents opined that that Public parksthat Parks help in solving the problem of each others.While 25% of total respondents do not agreed about the statement

Table No.3 Showing that Parks plays a vital role in bring the people in one platform

| Yes | % | No | % | Total |
|-----|-----|----|-----|-------|
| 80 | 80% | 20 | 20% | 100 |

The above table shows that 80% of total respondents agreed that Public Parks plays a vital role in the in bringing the people in one platform.While 20% of total respondents do not agreed about the statement

Table No.4 Showing thatpark reduce the chances of stress and anxiety among the youth

| Yes | % | No | % | Total |
|-----|-----|----|-----|-------|
| 68 | 68% | 32 | 32% | 100 |

The above table shows that 68% of total respondents agreed that park reduce the chances of stress and anxiety among the youth. While 32% of total respondents do not agreed about the statement

Table No.5 Showing that park reduce a chance of delinquent behaviour among the youth

| Yes | % | No | % | Total |
|-----|-----|----|-----|-------|
| 81 | 81% | 19 | 19% | 100 |

The above table shows that 81% of total respondents agreed thatpark reduce a chance of delinquent behaviour among the youth. While 19% of total respondents do not agreed about the statement

Table No.6 Showing that Parks play a vital role in develops of good qualities i.e. Brotherhood, cooperation, loyalty and respect of others

| Yes | % | No | % | Total |
|-----|-----|----|-----|-------|
| 64 | 64% | 36 | 36% | 100 |

The above table shows that 64% of total respondents agreed that Parks play a vital role in develops of good qualities i.e. Brotherhood, cooperation, loyalty and respect of others.While 35% of total respondents do not agreed about the statement

Table No.7 Showing that park play a vital role in culture development among the youth.

| Yes | % | No | % | Total |
|-----|-----|----|-----|-------|
| 84 | 84% | 16 | 16% | 100 |

The above table shows that 84% of total respondents agreed that Parks play a vital role in culture development among the youth.While 16% of total respondents do not agreed about the statement

Findings

84% of total respondents opined that that Public park bring positive changes and modification in the behavior of youth75% of total respondents opined that that Public parksthat Parks help in solving the problem of each others80% of total respondents agreed that Public Parks plays a vital role in bring the people in one platform68% of total respondents agreed that park reduce the chances of stress and anxiety among the youth.84% of total respondents agreed that Parks play a vital role in culture development among the youth.

Conclusion Of The Study

On the basis of findings the researcher conclude that, park play important role in daily life. Through visiting Public Park individual can understand about the value of different cultures and adopt these easily. Awareness about the benefit of park in daily life and also prevent from various unsocial activities. The researcher concluded that park play a vital role in decrease pollution, solving daily problem, bring the people in one platform. The researcher also concluded that public park play a role of decrees mental disturbance, develop cultural develop, reduce stress and anxiety and prevent the youth from various delinquent behaviors. It is concluded that park a key role in daily life of youth.

Recommendations Of The Study

The following general recommendations were drawn to enable optimal utilization and sustainable development of urban parks,

The Cooperate bodies, NGOs, Educational Institutions, donor communities and the local community who should also be empowered on effective urban park utilization and management.

The authorities should take serious charge of the Parks through proper maintenance and provision of basic Facilities like benches, shades and toilets.

The government should review its policies on park management to enable allocation of more resources and the system of management and financial sourcing to replicated in the other parks since it had proved to be successful.

Authority should enact tough penalties for those littering Parks or using Parks as dumping sites and plant more trees in all the Parks to improve on the environmental benefits.

Regulations and penalties reminders should be posted on all Parks to put the park on check and to control misuse and littering.

The concern authority must be maintained cleanlence, proper facilities of transport and management of security for public parks

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Study Regarding The Perception Of Athletes About The Role Of Massage In Sports Performance

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Abstract

Massage is the systematic manipulation of skin and underlying soft tissue. The masseur uses hands, sometime elbows and forearm to stroke, knead, squeeze, shake and compress muscles, tendons and ligaments for the purpose to improve health and wellbeing. Sports massage used for the medical aspect of athletic injuries and ailments. Sports massage has a great importance in athletic life because it provides a variety of benefits to the body. The physical benefits of sports massage on muscle includes relief of muscles stiffness and tension, reduce muscle pain, heal strained muscles and sprain ligament, improve joint flexibility and range of motion, increase blood flow and enhance athletic performance. The focus of this research study was to assess the perception of athletes about massage and its role in the maintenance of performance. The target population of this research study was comprised of all the players of different sports clubs of District Bannu. Two hundred and six (206) players were randomly selected as sample of the study. For the collection of data, the researcher developed a closed form of questionnaire. The developed questionnaire personally served by the researcher among the respondents and collected back after getting it filled by the respondents. The collected data were tabulated and analyzed by using percentage and mean average as statistical tool. After data analysis, the researcher arrived at conclusion that sports massage is the basic requirement of athletic performance. The data also revealed that the smooth mobility of tissue, complex massage, pre-event and post-physical therapeutic exercises are more important to use at the right amount for sports participation. **Key words:** Athlete, Massage, Sports Performance.

Introduction:

The history of Massage is old as the history of sports. It has been used from thousand years ago all over the world for the purpose to rehabilitate and relax the body after performing any sort of physical activities; not only in sports but also in daily use we cannot neglect the importance of massage. Taking a view of history then we can find it from china. The Chinese are believed to have practiced the techniques of massage as early as 3000 B.C. There are some special points in human body which become relax by pressing or rubbing. Chinese also used massage for the purpose of relaxation, with the utilization of anmo, a technique developed over many years of experience in finding the points on the body where various movements such as rubbing, pressing, and manipulations were most effective. It was considered as a treatment of different condition such as musculoskeletal injuries, psychological stress and relaxation. (Casser MP, 2004.)

Galloway (2004) disclosed his views that massage is the systematic manipulation of skin and underlying soft tissue. The masseur uses hands, sometime elbows and forearm to stroke, knead, squeeze, shake and compress muscles, tendons and ligaments for the purpose to improve health and wellbeing.

Sports massage used for the medical aspect of athletic injuries and ailments. Sports massage is one of the oldest and most common treatments of medical conditions. It has different physiological and psychological health benefits which can increase the sports performance of an athlete to an optimal level. Some of the experts indicate that sports massage can increase blood flow, decrease swelling, reduce muscle tension and neurological excitability, and increase a sense of well-being and has become a highly used manual therapy all over the world. (Robertson, A., Watt, J., Galloway.2004)

Sports massage is slightly different because in this type of massage more concentration is given to specific body parts or section and is performed before, during and after participation in any activity. According to Krilove, et al (1976) that sports massage is considered as an essential component within training program. Sports massage has been suggested as a mean to prepare an athlete for competition, as a tool to enhance athletic performance, as a treatment approach to help the athlete recover after exercise and competition and as a manual therapy intervention for sports related musculoskeletal injuries. Murphy SM, (1996) defined sports massage as "a more vigorous type of massage used to prepare athletes for peak performance and uses a combination of techniques including joint mobilization, stretching and/or post isometric relaxation, cross-fiber friction, and pressure point massage.

Sports massage has a great importance in athletic life because it provides a variety of benefits to the body. The physical benefits of sports massage on muscle includes relief of muscles stiffness and tension, reduce muscle pain, heal strained muscles and sprain ligament, improve joint flexibility and range of motion, increase blood flow and enhance athletic performance. According to Goodwin (2009) that a massage will speed up recovery, reduce soreness and relieve pain in the body.

According to Weerapong, Hume and Kolt (2005) report that many coaches, athletes and sports medicine personnel believe, based on observations and experiences, that massage can provide several physiological benefits to the body; such as increased blood flow, reduced muscle tension and neurological excitability, and an increased sense of well-being.

Regarding to physiological outcomes, Hart, Swanik and Tierney (2005) indicate that a massage is often used to help prepare for exercise, expedite recovery from muscle soreness, and enhance athletic performance. They further indicate that massage effectively reduces pain and swelling over time.

According to Benjamin P (1996) that Sport massage may help to optimize positive performance factors such as healthy muscle and connective tissues and normal range of motion. Massage is used to minimize negative-performance factors such as dysfunctional muscle and connective tissue, restricted range of motion, and pain and anxiety.

Under the Massage is a popular treatment and rehabilitation method athletes, coaches, and sports physical therapists

Statement of the study

Massage is considered as an important therapy as it plays an important role in the physical as well as mental wellbeing of individual. Massage helps to increase joint range of motion, flexibility, enhance athletic performance and decrease chance of injuries, muscles tension and pain. The psychological wellbeing includes stress reduction, enhanced wellbeing, improved body awareness, pain reduction and relaxation. It means that sports massage has a great relation with the development and improvement of athletic performance. It can help restore normal function to the body and to prepare it for athletic activity. And more important in order to maintain optimal function. so keeping in the view of above points sports massage has more importance for performing sports activities so for the purpose to discover and explain the fact the researcher decide to conduct a research study under the title "Study regarding the perception of Athletes about the role of massage in sports performance".

Objectives of the study

To investigate the perception of sportsmen about the role of massage from physiological perspectives.

To investigate the perception of sportsmen about the role of massage from psychological perspectives.

To compare the perception of sportsmen about the role of massage from psychological and physiological perspectives.

Hypothesis of the study

H0: there is no significance role of massage for physiological aspects of sportsmen.

H0; there is no significance role of massage for psychological aspect of sportsmen.

H0; there is no significance difference of perception regarding the role of massage from physiological and psychological perspectives.

Significance of the study

Massage therapy is commonly utilized in athletic settings to prepare athletes for activity, help flush toxins after activity, or in the prevention and treatment of athletic injuries. Sports massage is more beneficial for performing sports activities. It has a key role in the physiological and psychological wellbeing of an individual. Not only in sports field but also helpful in routine life. So after this particular research study the sportsmen and sports general body will provide more attention towards sports massage.

Methods And Materials

The methodology is the systematic and theoretical assessment of the methods applied in the field of study. It is part of the theoretical analysis of the set of methods and principles associated with a branch of knowledge (Kothari, 2004). The researcher adopted the following procedures for the purpose to collect the required data, to analyze the collected data and to draw the conclusion.

Population of the Study

According to Kothari (2004), "A research population is generally a large collection of individuals or objects that is the main focus of a scientific query". The population of this study was comprised of all the players participated in different sports clubs at different level of sports activities in the locality of District Bannu KP Pakistan.

Sample and Sampling Size

"Sample size is an central feature of any study in which the goal is to make inferences about a population from a sample. In practice, the sample size used in a study is determined based on the cost of data collection and the need to have enough statistical power." (Lenth, 2001). There are total 72 sports clubs in District Bannu KP Pakistan and the total one thousand and twenty eight (1028) players are registered in these sports clubs. It is difficult to contact each of the players in the population. So the researcher confined his population and taken randomly two hundred and six (206) players by twenty percent (20%) of total population. The underneath table shows the detail of sample and sample size

Table NO.1.1

| S. No | Game/Event | Total Club | Total players |
|-------|--------------|------------|---------------|
| | Football | 19 | 304 |
| | Cricket | 22 | 352 |
| | Hockey | 8 | 128 |
| | Basketball | 4 | 40 |
| | Volley Ball | 16 | 192 |
| | Table Tennis | 3 | 12 |
| | Total | 72 | 1028 |

Data Collection Tool

For compilation of the required data, the researcher developed a structured and previously tested Massage and sports performance scale (DSPS) of three options, that is, in the agreement. Uncertain and disagree. The code and the weight of each option are

| S.No | Option | Code | Weight |
|------|-----------|------|--------|
| 1. | Agree | A | 01 |
| 2. | Undecided | UN | 02 |
| 3. | Disagree | DA | 03 |

Before using of the developed Scale for the collection of data, the develop Scale was made reliable and valid such as

Validity of the Instrument

A 20 items likert type scale was established to assess the opinion of athletes about Massage and its role in sports performance. In emerging the instrument and to make it valid various methods were used. For build validity (construct validity evaluates the degree to which the scores from the scale link to other methods of theoretical characters (Khan, 2014) and content validity (includes assessments of the degree to which the content of a scale relates to what it is intended to measure (Khan, 2014) A variety of previous scales Burke (2007), Hoch etal (2008), Boyle (2016) were used.

Reliability of the Instrument

It is believed that the instruments are reliable when they produce the same results whenever they are used (Khan, 2008). The author explains that the reliability of an instrument is determined by one or more commonly accepted procedures. In estimating the internal consistency reliability, the scale was administered to 20 experts in the field of sports sciences, physical education, and education. The responses of the experts were gathered and calculated the inter item correlation on items, and the coefficient alpha on the whole scale. The Cronback alpha of the scale was measured as 0.87 which is highly reliable

Mode for Data Collection

The scale developed is personally distributed by the researchers in the center of the selected population and collected after it is filled by the respondents.

Presentation And Analysis Of Data

Data collected form the respondents were analyzed by using percentage and mean average as statistical tool. The analysis are shown in tables 1,2 ,3 and 4.

Data Analysis

For the analysis of data the researcher used Statistical Package for Social Sciences (SPSS) as statistical tool.

Statistical Analysis of data Test of Hypothesis 1:

H0: there is no significance role of massage for physiological aspects of sportsmen.

Test of Hypothesis 1: There is no significant role of massage (as perceived by sportsmen) in athletic performance (in line with objective 1)

Table-2.1: Role of massage for physiological aspects of sportsmen

| Model Summary | | | | |
|------------------------------------|-------------------|----------|-------|---------------------|
| Model | R | R Square | F | Sig. |
| 1 | .148 ^a | .022 | 5.103 | .025 ^(b) |
| a. Predictors: (Constant), Massage | | | | |

| Coefficients ^a | | | | | | |
|-------------------------------------------|------------|-----------------------------|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.405 | .326 | | 7.380 | .000 |
| | Massage | .192 | .085 | .148 | 2.259 | .025 |
| a. Dependent Variable: sports performance | | | | | | |

Table 2.1 show the role of massage for the physiological aspects of sportsmen. The R square is .022 which means 2% role of massage for physiological aspects of sportsmen. The B is .192 (p=0.025 which mean total 1 unit increase in massage will cause .192 unit overall increase.

Result & Discussion

The present study indicates that majority of the players opined that sports massage has a great role in the enhancement of sports performance. The present research study is also supported by Hemmings (2000) as they concluded that sports massage can be useful for factors related to a person's psychological condition. Robertson et al (2004) also examined the effects of massage on lactate clearance, muscular power output, and fatigue after bouts of high intensity training. Study conducted by Sng Bee. (2012), also supported the present study by stating that good communication skills not only important for teacher but it is also important for students for their academic success. The present study indicated that effective teaching not only depends upon the knowledge base of the teacher but also it is related with method and style of teacher communication skills. The findings of the study conducted by Cohort Nominated (2016), also inline of the present study because he concluded Teaching is generally considered as only fifty percent knowledge and fifty percent interpersonal or communication skills similarly it is not necessary for a teacher to have good knowledge but it is also necessary for a teacher to have a good communication skills. It was finding out by the present research study that good communication is not only important for a teacher but students also need to have good communication skills. Same result also found by David Andrade, (2015) according to that Communication is dominant factor effecting the academic achievements of the students. The author further argued that good communication not only important for a teacher but it is also very important for students for promoting their academics.

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A Critical Analysis Of Emotional Intelligence-Throwers And Jumpers

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Abstract

The purpose of the present study was to investigate the emotional intelligence- between throwers and jumpers. To attain the purpose of the study inter-collegiate level 50 throwers and 50 jumpers were selected as sample from different colleges under Bangalore University- Bangalore in the year of 2017-18. The subject's age ranges from 20-25 years. The data for the study were collected by using closed ended questionnaire method.. The scores on Emotional intelligence were collected by Emotional intelligence Inventory prepared by Dr Sam Sunanda Raj & Jayaraj B (1998). To find out the significance of Mean difference between throwers and jumpers, Statistical technique 't' test was used to compare the emotional intelligence between selected groups. The results revealed that there was no significant difference found in throwers and jumpers. Key Words: Emotional Intelligence, Inter Collegiate, Throwers and Jumpers

Introduction

Physical education is most important factor of common education. It is the education through physical activities. The aim of the education is overall development of human being. The aim of the physical education is not out of common education it helps to overall development of child through physical activities.

Today sports has considered as international discipline as it develops international understanding and universal brotherhood. Sports develop national character and also it provides to fullest self expression to man and it is one of the fundamental needs. Human being is considered as an intellectual animal that wants to participate in physical activities to attain personal achieve growth and development and to maintain good health. It is natural is both quality and a child to participate in activities like running, jumping, throwing etc. Sport is a dynamic, creative, continuous process which gives meaning to reflect and the values believe and ethics of participation. Sports is a chief component in promoting friendship, peace and understanding between people society and country because the trouble free delight come only from sport.

Jumps and Throws are very popular events in sports arena especially in track and field and draw a great amount of attention from athletes and spectators. Jumps and Throws are two complex tasks that require high neuromuscular demand and psychological attainment in all aspects to perform at peak levels. In this study I have focused on the influence of psychological factor delimited to emotional intelligence variable on Jumps and Throws events.

Psychology is the study of human behaviour and human relationship. Sports psychology means applying psychological theories and concepts to aspects or sports such as coaching and teaching. Sports psychology is concerned with analyzing human behaviour in various types of sport settings. It is individuals' behaviour acting individually and acting in a group. This sport psychologist uses psychological in assessment techniques and intervention strategies are on effort to help individuals to achieve their optimal performance.

Mayer and Salovey (1997:5) defined Emotional Intelligence (EI) as "the ability to perceive emotions, to assess and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth". Petrides (2011:657) states that there are two EI constructs (trait and ability), differentiated by the methods used to operationalise them. Trait EI is measured via self – report questions, whilst ability EI is measured using maximum performance tests, i.e. questions that have 'right' or 'wrong' answers (Petrides,

2011:657). Trait EI is formally defined as a “constellation of emotional self-perceptions located at the lower levels of personality hierarchies” (Petrides, Pita, and Kokkinaki 2007:283).

Emotions play an important role in sport performance (Jones 2003:471). The research below supports this, High EI has been proven to be beneficial for athletes of team sports improving their performance. Crombie, Lombard, and Noakes (2009) found that team EI scores gained through ability test in cricket were positively related to the team’s performance over two seasons. This suggests that team EI scores are a significant predictor of sports performance. According to Zizzi et al (2003), an athlete must recognise their emotions, as well as their teammates and opponents emotions, in order to perform well in team sports.

Moreover, at the individual level higher EI was found to be positively related to the use of psychological skills, such as imagery and self-talk (Lane, Thelwell, Lowther, & Devonport 2009) which have been proven to aid performance. Another positive effect EI is found to be related to task-oriented coping in table tennis players for different stressful situations (Laborde & Salinas, in press). Facing stress and anxiety is common for all athletes. Especially those that are to perform at the highest level, they in particular must cope appropriately with stress when under lots of pressure. Hassanalian (2005) in an investigation under the title of comparison of emotional intelligence of champions and athletes of group and individual sports with non athlete individuals came to the final result that non athletes in terms of emotional intelligence, intra-individual intelligence, inter-individual intelligence, adaptability, stress control and common temperament. In addition, difference of athletic champions from other athletes, in addition to the above mentioned aspects, in sub emotional self-consciousness tests, i.e. Self-assertiveness, self-regard, independence, intimacy, accepting social responsibility, problem solving, reality test, stress endurance, shock control and optimism was significant. Level of inter-personnel intelligence in athletes of group sports was more than athletes of individual sports. Besharet, Abbasi & Mirza Kamsefidi (2005) in an investigation under the title of “Athletic success in group and individual sports based on emotional intelligence” came to the final decision that there is a positive relationship between emotional intelligence and athletic success in group and individual sports.

Purposes Of The Study:

The main purpose of this study was to assess the Emotional-Intelligence level of Jumpers and Throwers of Bangalore University-Bangalore.

The secondary purpose of this study was to compare the Emotional Intelligence level among Jumpers and Throwers of Bangalore University-Bangalore.

Statement Of The Problem:

“Whether any significant difference among the Jumpers and Throwers of Bangalore University-Bangalore”.

HYPOTHESIS:-

It was hypothesised that there was a high level of Emotional Intelligence in selected groups of Bangalore University-Bangalore”.

It was hypothesised that there was a significant difference in compare to Jumpers and Throwers of Bangalore University-Bangalore.

Methodology:

Tools:

As discussed earlier the main purpose of the study was to investigate the “Emotional Intelligence level” among Jumpers and Throwers of Bangalore University-Bangalore. For this purpose the standardized Emotional Intelligence Inventory developed by “Dr Syam Sunanda Raj & Jayaraj” was administered. Questionnaire has twenty-six items (26) every question has five possible responses, i.e. 1- strongly agree(SA), 2-agree(A), 3-undecided(UD), 4- disagree(D), 5- strongly disagree(SD). The items are stated in such a way that if the answer is positive, says SA-five points, A-four points, UD-three points, D-two points and SD- one point. The questions are 1,5,8,11,14,15,17,19,20,21,23 and 26 are positive items and the questions 2,3,4,6,7,9,10,12,13,16,18,22,24 and 25 are negative items. As such scoring will be done in reverse order. Therefore the higher score on the scale greater the degree of emotional intelligence and vice-versa.

Subjects:

To achieve the objective of present study 100 players were chosen. Equally same number from Jumpers and Throwers who were participated the inter-collegiate athletic tournament in the year 2017-2018 of Bangalore University- Bangalore were chosen randomly as the subjects. The subjects for this study the age limit was restricted in the range of 20-25 years.

Testing Procedure:

For the purpose of this study the above mentioned standardized questionnaire were administered individually to each subject. At the beginning of testing, the investigator approached to subjects and their coaches at personnel to help in the data collection. The investigator briefly explained the objective and clarifies questions from the subjects and given appropriate time to finish the test. After completion of test immediately collected response sheets by investigator.

Table: Subjects Classification according to their Scores.

| SL NO | SCORES | CLASSIFICATION |
|-------|--------|-----------------------------------|
| 1 | 26-49 | "Low" Emotional Intelligence |
| 2 | 50-92 | "Moderate" Emotional Intelligence |
| 3 | 93-130 | "High" Emotional Intelligence |

Statistical Procedure

The following statistical techniques 't' ratio was calculated to find out the significance of the difference between the mean and standard deviation of the "Jumpers and Throwers".

Analysis Of The Data

The significance of the difference among the means of "Jumpers and Throwers" was found out by comparison. The data were analysed and dependent t test was used with 0.05 levels of confidence.

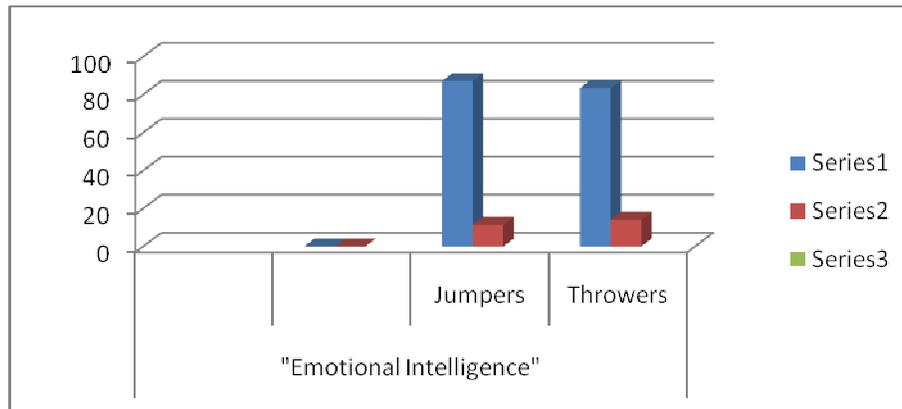
TABLE-1: Comparison of Emotional Intelligence among Jumpers and Throwers.

| SL NO | Variable | Game | Mean | SD | Df | 't'- value |
|-------|--------------------------|-----------------|-------|-------|----|------------|
| 1 | "Emotional Intelligence" | Jumpers (N-50) | 87.18 | 11.34 | 98 | 1.574* |
| 2 | | Throwers (N-50) | 83.42 | 14.02 | | |

Significance level at 0.05, df (98) =1.658

The table shows that the mean values of "Jumpers and Throwers" on "Emotional Intelligence" were 87.18 and 83.42 respectively. This indicates that both groups have a "Moderate" level of Confidence and the SD of "Jumpers and Throwers" was 11.34 and 14.02 respectively. The obtained 't'ratio was 3.274* since the obtained calculated value was lesser than table value of 1.658 for significance at 0.05 level with 98 degrees of freedom it was found to be statistically in-significant. The result of the study showed that there was a no-significant difference between both groups in Emotional Intelligence level and the hypothesis was rejected.

FIGURE: A graphical representation shows the mean and SD of “Self Confidence level between Team game players and Individual game players”



Results:

From the statistical analysis it was concluded that the “Throwers and Jumpers” were having moderate “Emotional Intelligence” level and there is no significant difference among “Throwers and Jumpers” in comparison.

Conclusion:

There is strong evidence to confirm that EI has a major role in sport and that it is beneficial for performance. It is worth remembering that being ‘emotionally intelligent’ is not about having a positive outlook or cheery personality, it is about emotionally intelligent athletes being more to cope with the full array of emotions that accompany the challenges of sports participation allowing them to perform to a higher standard. for this reason, given the effect of emotional intelligence in educational, occupational and social success of training programmes for enhancing emotional intelligence in all people especially athletes it is much necessary .

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A Study On Prevalence Of Obesity Among Women In Selected Area Of Tamilnadu

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Abstract

Obesity is a major health issue in current scenario .Women are more prone to gain weight as age progress. The aim of this study is to assess the prevalence of obesity among married and unmarried women using BMI .This descriptonal cross sectional study was conducted in vellore of Tamilnadu among Married and unmarried women. 20 married women who were not having children and 20 unmarried women aged between 20-35 years were selected by random sampling method. Married women who were not having children Questionnaire was used to record the socio-demographic profile of women after obtaining informed consent.The body mass index (BMI) was calculated using Quetelet index. Datas were analysed using Mean ,percentage and t test .Results showed that majority of both married and unmarried women were unemployed and there was significant difference in BMI among married(not having children) and unmarried women at $P < 0.05$.Among married women majority of 55% were found to be overweight and 60% unmarried women were found to be having normal weight.

Key words:obesity,married women,unmarried women, body mass index.

Introduction.

Overweight and obesity are major risk factors for a number of chronic diseases. An esti-mated 300,000 people die each year of illnesses related to obesity, more than the number killed by pneumonia, motor vehicle accidents and airlines crashes combined [1]. Obesity is increasing around the world. High body mass index now ranks with major global health problems. While some studies have found that current marital status is itself correlated with body weight and obesity [2], other research suggests that marital transition—the act of moving from one marital status to another—is also important in predicting body weight changes and the behavioral risk factors associated with weight gain [2]. BMI is frequently used in population studies because of its ease of determination and well-supported association with mortality and health effects. Body Mass Index (BMI) is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m^2) Marital status (MS) has also been shown to be associated with BMI and most cross-sectional studies tend to find that married people are more often overweight and obese than those living alone; however, important variations exist according to gender and ethnicity [3,4].

Methodology.

This descriptonal cross sectional study was conducted in vellore of Tamilnadu among Married (not having children) and unmarried women. Samples were selected by organizing medical camps.Both men and women of different age groups attended the camp .Among them twenty married and unmarried women aged 20-35 years were selected by random sampling method.

Pregnant women were excluded from the study. Questionnaire was used to record the socio-demographic profile of women after obtaining informed consent. Height was measured using stadiometer and weight was measured using electronic weighing machine. The body mass index (BMI) was calculated using Quetelet index. Asian classification of obesity[5] was used . The independent variables considered for this analysis were married(not having children) and unmarried women. Dependent variables include age, and marital status.. Analysis was done in Microsoft excel and SPSS version 20.0.Datas were analysed using Mean ,percentage and t test . $P < 0.05$ was taken as significant.

Results.

Obtained datas were analysed .The table-1 below shows the Mean Standard deviation and Obtained t value of BMI level among married and unmarried women.

Table- I Mean Standard deviation and Obtained t value of BMI level among married and unmarried women.

| Name of the Group | Mean BMI | SD | Obtained t Value | Table t Value |
|-------------------|----------|----------|------------------|---------------|
| Married | 26.5 | 2.264554 | 6.1871* | 1.99 |
| Unmarried | 18.775 | 1.476092 | | |

* significant at .05 level of confidence.

The mean value of married women is 26.5 and unmarried women is 18.775. The standard deviation of married group is 2.264554 and unmarried is 1.476092. The obtained t value 6.1871 is greater than the table value of 1.99 at .05 level of confidence and hence it is significant.

The number of married and unmarried women were categorized according to their BMI Values as underweight, normal ,overweight and obese. Table -2 shows the assessment of BMI among Married and Unmarried

Table-2: BMI Assessment Among Married and Unmarried Women

| S.NO | MARITAL STATUS | UNDERWEIGHT | | NORMAL | | OVERWEIGHT | | OBESE | |
|------|----------------|-------------|----|--------|----|------------|----|-------|----|
| | | No | % | No | % | No | % | No | % |
| 1 | MARRIED | 2 | 10 | 5 | 25 | 11 | 55 | 2 | 10 |
| 2 | UNMARRIED | 5 | 25 | 12 | 60 | 2 | 10 | 1 | 5 |

Among married women 10% were found to be underweight,25% were found to be having normal weight,11% were found to be Overweight and 10% were found to be obese. Among unmarried women 25% were found to be underweight,60% were found to be having normal weight,10% were found to be Overweight And 5% Were Found To Be Obese.

Discussion

The results of the study shows that there is significant difference in BMI Values between married and unmarried women. Mean BMI value of Unmarried group showed that they were having normal weight, but mean BMI value of married group depicted they were overweight. Though married women were not having children they found to be over weight than unmarried women .Marriage gives new responsibilities and a married woman feels exhausted in Managing work and household chores Chaotic eating pattern often leaves women putting on weight[6]. They often feel stressed with the new set of responsibilities which is one of major cause of weight gain. Similar results were observed by Klos LA et al 2013[7]They examined the relationship between marital status and weight related variables among adult individuals and concluded that marital roles appear to influence their perceived and desired weight, suggesting that weight management interventions should be sensitive to both marital status and gender differences.

Al-Malki JS et al 2003[8] conducted a study to determine the prevalence of overweight and obesity in Saudi females of childbearing age. results of the study showed Significant increase in the prevalence of both overweight and obesity with age. Unmarried and married females were compared and the latter had a higher prevalence of both overweight and obesity compared to the former.. The prevalence of overweight and obesity was higher amongst a group of married women than among a group of single women and concluded that there is an urgent need to spread awareness about obesity, its consequences and ways and means of prevention among the females.

Conclusion.

Obesity is one of the most pervasive, chronic diseases in need of new strategies for medical treatment and prevention. In general, married women were more likely to be overweight and obese than un married individuals. The results concludes that married women (not having children) were overweight and unmarried women were having normal weight.

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Effects Of Resistance, Suryanamaskar And Combined Training With Almond Supplementation On Low Density Lipoprotein And Blood Glucose Among Overweight School Children

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Abstract

The purpose of the study was to find out the effects of Resistance, Suryanamaskar and Combined Training with almond supplementation on low density lipoprotein and blood glucose among overweight school children. To achieve the purpose of this study, sixty (N=60) overweight school children were selected from Sri Iyappa Matriculation Higher secondary school, Shozhanganallur in Chennai district, Tamil Nadu, India were selected as subject at random and their age group ranged between 11 to 14 years. Female Overweight school children selected for this research. The selected sixty overweight school children were divided into four equal groups consisting of fifteen (n=15) subjects each. The selection of control and experimental groups were done at random. Experimental Group I underwent resistance training with almond supplementation for three days per week. Experimental Group II underwent suryanamaskar training with almond supplementation for three days per week. Experimental Group III underwent combined training with almond supplementation for three days per week and group IV acted as Control Group. Subjects who were in the control group were not exposed to any experimental training and supplementation for the period of 12 weeks. Low density lipoprotein and blood glucose were selected as dependent variables and independent variables are resistance training, suryanamaskar, combined training and almond supplementation. The data was collected before and after the experimental treatment period. Analysis of Covariance (ANCOVA) and Scheffe's post hoc test was used in this study. It was concluded that low density lipoprotein and blood glucose level was significantly decreased due to the influence of twelve weeks of resistance, suryanamaskar and combined training with almond supplementation comparing to the control group.

Key Words: Low density lipoprotein, Blood glucose, Resistance training, Suryanamaskar training, combined training.

Introduction

Obesity has reached epidemic proportions in India, according to some studies 5% of the population are affected by morbid obesity. As many as 135 million Indians are currently battling obesity and tackling related health issues. In developing countries such as India, especially in urban populations, childhood obesity is emerging as a major health problem. Studies from metropolitan cities in India have reported a high prevalence of obesity among affluent school children. Overweight in children and adolescents are gradually becoming a major Public health problem leads to major risk factors for number chronic diseases, including diabetes, cardiovascular diseases and cancer.

Purpose of the Study

The purpose of the study was to find out the effects of resistance, suryanamaskar and combined training with almond supplementation on low density lipoprotein and blood glucose among overweight school children.

Methodology

To achieve the purpose of this study, sixty (N=60) overweight school children were selected from Sri Iyappa Matriculation Higher secondary school, Shozhanganallur in Chennai district, Tamil Nadu, India were selected as subject at random and their age group ranged between 11 to 14 years. Female Overweight school children selected for this research. The selected sixty overweight school children were divided into four equal groups consisting of fifteen (n=15) subjects each. The selection of control and experimental groups were done at random. Experimental Group I underwent resistance training with almond supplementation for three days per week. Experimental Group II underwent suryanamaskar training with almond supplementation for three days per week. Experimental Group III underwent combined training with almond supplementation for three days per week and group IV acted as Control Group. Subjects who were in the control group were not exposed to any experimental training and supplementation for the period of 12 weeks. The pre and post test was conducted before and after the 12 weeks of experimental period. Low density lipoprotein and blood glucose were selected as dependent variables and independent variables are resistance training, suryanamaskar, combined training and almond supplementation. Analysis of Covariance (ANCOVA) was used to find out the significant differences between the pre test and post test for low density lipoprotein and blood glucose and post hoc test was used to find out the paired means differences the groups.

Analysis Of Covariance Of Low Density Lipoproteins

The following tables illustrated the statistical results to the effects of resistance training, surya namaskar and combined training with almond supplementation on low density lipoproteins of overweight school children and ordered adjusted means the groups under study.

Table – I:Computation Of Analysis Of Covariance On Low Density Lipoproteins

(Scores in mgs/dl)

| Means | Exp Group I | Exp Group II | Exp Group III | Control Group | SV | SS | df | MS | Obtained 'F' |
|--------------------|-------------|--------------|---------------|---------------|----|---------|----|---------|--------------|
| Pre test | 121.53 | 123.67 | 124.60 | 116.80 | B | 544.58 | 3 | 181.53 | 1.40 |
| | | | | | W | 7281.07 | 56 | 130.02 | |
| Post test | 111.07 | 104.07 | 97.60 | 117.33 | B | 3288.18 | 3 | 1096.06 | 10.19* |
| | | | | | W | 6020.80 | 56 | 107.51 | |
| Adjusted post test | 111.15 | 102.65 | 95.53 | 120.73 | B | 4981.11 | 3 | 1660.37 | 37.37* |
| | | | | | W | 2443.76 | 55 | 44.43 | |

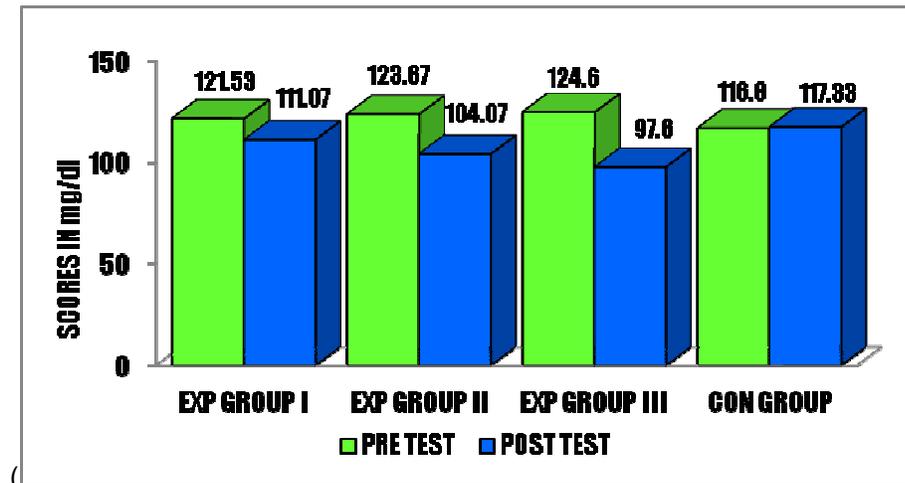
*Significant. F ratio for 3 and 56 = 2.77 and 3 and 55 = 2.77 (0.05 level)

TABLE - I (a):Computation Of Scheffe's Post Hoc Test Ordered Adjusted Final Mean Difference Of Low Density Lipoproteins

(Scores in mgs/dl)

| Control Group | Experimental Group I | Experimental Group II | Experimental Group III | MD | CI |
|---------------|----------------------|-----------------------|------------------------|--------|------|
| 120.73 | 111.15 | - | - | 9.58* | 7.02 |
| 120.73 | - | 102.65 | - | 18.08* | 7.02 |
| 120.73 | - | - | 95.53 | 25.20* | 7.02 |
| - | 111.15 | 102.65 | - | 8.50* | 7.02 |
| - | 111.15 | - | 95.53 | 15.62* | 7.02 |
| - | - | 102.65 | 95.53 | 7.12* | 7.02 |

Figure – 1: Bar Diagram Showing The Pre And Post Test Means Of Low Density Lipoproteins (Scores In Mgs/Dl)



Discussion on the Findings of Low Density Lipoprotein

The analysis of co-variance of Low Density Lipoprotein indicated that experimental group I (resistance training), experimental group II (suryanamaskar training), experimental group III (combination of resistance and suryanamaskar training) were significantly decreased than the control group on Low Density Lipoprotein. It is due to the influence of twelve weeks of resistance, suryanamaskar and combined training with almond supplementation.

The finding of the study showed that experimental group III (combination of resistance and suryanamaskar training) had reduced Low Density Lipoprotein more than the experimental group I and experimental group II. This study revealed that together with resistance, suryanamaskar and combined training methods almond supplementation also helps to decrease the low density lipoprotein in overweight school children.

Result on Blood Glucose

The following tables illustrated the statistical results to the effects of surya namaskar, resistance training and combined training with almond supplementation on glucose of overweight school children and ordered adjusted means the groups under study.

Table – II: Computation Of Analysis Of Covariance On Glucose (Scores in mgs/dl)

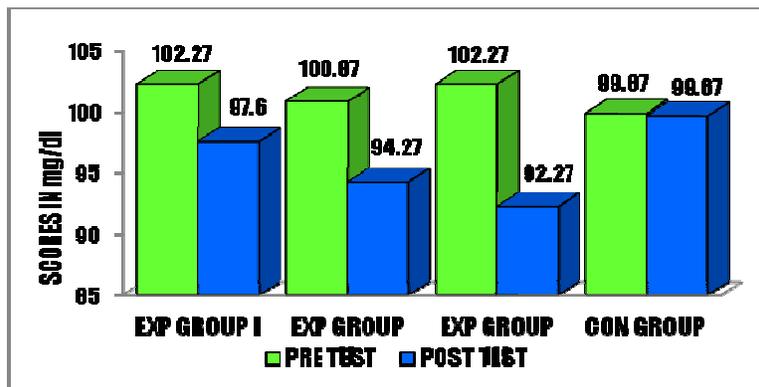
| Means | Exp Group I | Exp Group II | Exp Group III | Control Group | SV | SS | df | MS | Obtained 'F' |
|--------------------|-------------|--------------|---------------|---------------|----|---------|----|--------|--------------|
| Pre test | 102.27 | 100.87 | 102.27 | 99.87 | B | 61.65 | 3 | 20.55 | 1.09 |
| | | | | | W | 1059.33 | 56 | 18.92 | |
| Post test | 97.60 | 94.27 | 92.27 | 99.67 | B | 494.05 | 3 | 164.68 | 14.81* |
| | | | | | W | 622.80 | 56 | 11.12 | |
| Adjusted post test | 97.07 | 94.52 | 91.74 | 100.48 | B | 607.441 | 3 | 202.48 | 38.06* |
| | | | | | W | 292.64 | 55 | 5.32 | |

*Significant. F ratio for 3 and 56 = 2.77 and 3 and 55 = 2.77 (0.05 level)

TABLE –II (a):Computation Of Scheffe’s Post Hoc Test Ordered Adjusted Final Mean Difference Of Glucose
(Scores in mgs/dl)

| Control Group | Experimental Group I | Experimental Group II | Experimental Group III | MD | CI |
|---------------|----------------------|-----------------------|------------------------|-------|------|
| 100.48 | 97.07 | - | - | 3.41* | 2.43 |
| 100.48 | - | 94.52 | - | 5.96* | 2.43 |
| 100.48 | - | - | 91.74 | 8.74* | 2.43 |
| - | 97.07 | 94.52 | - | 2.55* | 2.43 |
| - | 97.07 | - | 91.74 | 5.33* | 2.43 |
| - | - | 94.52 | 91.74 | 2.78* | 2.43 |

Figure 2 :Bar Diagram Showing The Pre And Post Test Means Of Glucose
(Scores in mgs/dl)



Discussion on the Findings of Blood Glucose

The analysis of co-variance of Blood Glucose indicated that experimental group I (resistance training), experimental group II (suryanamaskar training), experimental group III (combination of resistance and suryanamaskar training) were significantly decreased than the control group on blood glucose. It is due to the influence of twelve weeks of resistance, suryanamaskar and combined training with almond supplementation. The finding of the study showed that experimental group III (combination of resistance and suryanamaskar training) had reduced blood glucose level more than the experimental group I and experimental group II. The findings of the study showed that resistance, suryanamaskar and combined training methods used to decrease the blood glucose level in the overweight school children together with almond supplementation.

Conclusions

Within the limitation of this study, the following conclusions were drawn. It was concluded that twelve weeks resistance, suryanamaskar and combined training with almond supplementation helps to reduce low density lipoprotein and blood glucose level significantly in the overweight school children. But particularly the combined training group had significantly decreased the low density lipoprotein and blood glucose level in the overweight school children than resistance and suryanamaskar training groups.

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Effects Of Resistance, Suryanamaskar And Combined Training With Almond Supplementation On Selected Serum Electrolytes Among Obese School Children

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Abstract

The purpose of the study was to find out the effects of Resistance, Suryanamaskar and Combined Training with almond supplementation on selected serum electrolytes among obese school children. To achieve the purpose of this study, sixty (N=60) obese school children were selected from Sri Iyappa Matriculation Higher secondary school, Shozhanganallur in Chennai district, Tamil Nadu, India were selected as subject at random and their age group ranged between 11 to 14 years. Female Obese school children selected for this research. The selected sixty obese school children were divided into four equal groups consisting of fifteen (n=15) subjects each. The selection of control and experimental groups were done at random. Experimental Group I underwent resistance training with almond supplementation for three days per week. Experimental Group II underwent suryanamaskar training with almond supplementation for three days per week. Experimental Group III underwent combined training with almond supplementation for three days per week and group IV acted as Control Group. Subjects who were in the control group were not exposed to any experimental training and supplementation for the period of 12 weeks. Serum sodium and serum potassium were selected as dependent variables and independent variables are resistance training, suryanamaskar and combined training. The data was collected before and after the experimental treatment period in the dependent variable such as serum sodium and serum potassium through blood samples. Analysis of Covariance (ANCOVA) and Scheffe's post hoc test was used in this study. It was concluded that serum sodium and serum potassium level significantly decreases due to the influence of twelve weeks of resistance, suryanamaskar and combined training with almond supplementation to compare to the control group.

Key words: serum sodium, serum potassium, Resistance training, Suryanamaskar training, combined training.

Obesity

Obesity is characterized by obese and fatness. It is due to over eating and caloric abundance. It commonly occurs in school children and an adolescent population. Obese is the result of imbalance between calorie intake and calorie expenditure as energy. The intake of food will be higher, but the expenditure of energy will be lesser because of lesser physical work. The unspent calories become converted into fat accumulated in the body as fat.

Obesity is a health hazard. It increases the possibility of heart disease. This is mainly because about two-thirds of mile of blood vessels are required for each pound of additional adipose tissue. Thus excess weight is likely to impose a great additional work load on the heart. Obesity has damaging psychological consequences. This is particularly true for obese children who tend to feel isolated and rejected by their peers. The terms obese and obesity often are used interchangeably, but technically they have different meanings.

Purpose Of The Study

The purpose of the study was to find out the effects of resistance, suryanamaskar and combined training with almond supplementation on selected serum electrolytes among obese school children.

Methodology

To achieve the purpose of this study, sixty (N=60) obese school children were selected from Sri Iyappa Matriculation Higher secondary school, Shozhanganallur in Chennai district, Tamil Nadu, India were selected as subject at random and their age group ranged between 11 to 14 years. Female Obese school children selected for this research. The selected sixty obese school children were divided into four equal groups consisting of fifteen (n=15) subjects each. The selection of control and experimental groups were done at random. Experimental Group I underwent resistance training with almond supplementation for three days per week. Experimental Group II underwent suryanamaskar training with almond supplementation for three days per week. Experimental Group III underwent combined training with almond supplementation for three days per week and group IV acted as Control Group. Subjects who were in the control group were not exposed to any experimental training and supplementation for the period of 12 weeks. The pre and post test was conducted in the dependent variables such as serum sodium and serum potassium the collection of blood sample in the obese school children before and after the 12 weeks of experimental period. Analysis of Covariance (ANCOVA) was used to find out the significant differences between the pre test and post test for serum sodium and serum potassium and post hoc test was used to find out the paired means differences the groups.

Analysis Of Data

Result On Serum Sodium

The following tables illustrated the statistical results to the effects of resistance training, surya namaskar and combined training with almond supplementation on serum sodium of obese school children and ordered adjusted means the groups under study.

Table-I-computation Of Analysis Of Covariance On Serum Sodium

(Scores in mmol/l)

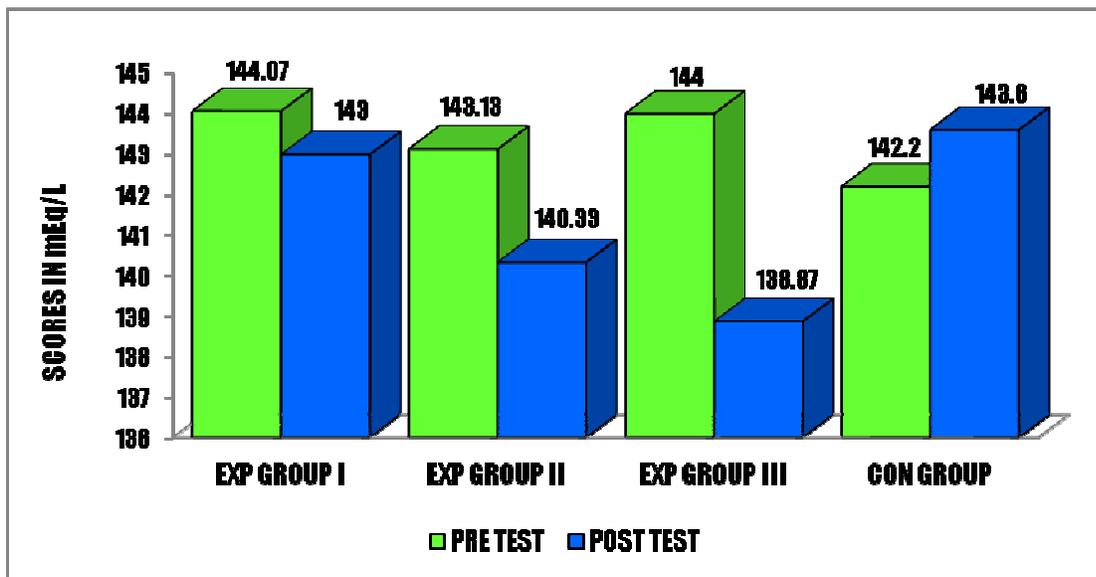
| Means | Exp Group I | Exp Group II | Exp Group III | Control Group | SV | SS | df | MS | Obtained 'F' |
|--------------------|-------------|--------------|---------------|---------------|----|--------|----|-------|--------------|
| Pre test | 144.07 | 143.13 | 144 | 142.20 | B | 34.58 | 3 | 11.53 | 1.17 |
| | | | | | W | 551.07 | 56 | 9.84 | |
| Post test | 143 | 140.33 | 138.87 | 143.60 | B | 224.18 | 3 | 74.73 | 8.89* |
| | | | | | W | 470.67 | 56 | 8.40 | |
| Adjusted post test | 142.47 | 140.49 | 138.39 | 144.45 | B | 296.94 | 3 | 98.98 | 31.61* |
| | | | | | W | 172.23 | 55 | 3.13 | |

*Significant. F ratio for 3 and 56 = 2.77 and 3 and 55 = 2.77 (0.05 level)

Table -I (A):Computation Of Scheffe’s Post Hoc Test Ordered Adjusted Final Mean Difference Of Serum Sodium
(Scores in mmol/l)

| Control Group | Experimental Group I | Experimental Group II | Experimental Group III | MD | CI |
|---------------|----------------------|-----------------------|------------------------|-------|------|
| 144.45 | 142.47 | - | - | 1.97* | 1.86 |
| 144.45 | - | 140.49 | - | 3.95* | 1.86 |
| 144.45 | - | - | 138.39 | 6.06* | 1.86 |
| - | 142.47 | 140.49 | - | 1.98* | 1.86 |
| - | 142.47 | - | 138.39 | 4.08* | 1.86 |
| - | - | 140.49 | 138.39 | 2.10* | 1.86 |

FIGURE 1:BAR DIAGRAM SHOWING THE PRE AND POST TEST MEANS OF SERUM SODIUM (SCORES IN MMOL/L)



Discussion On The Findings Of Serum Sodium

In this work, the analysis of covariance of sodium was carried out in three different Experimental Groups with the inclusion of resistance training, surya namaskar and combined training with natural fat reduction supplementation. The same analysis was carried out in another group called the Control Group without inclusion of training. From these analyses, it was found that the results obtained from the Experimental Groups had significant influences in the sodium.

It was interesting to note that the results obtained from Experimental Group III had more significant effect than Experimental Group I, Experimental Group II and Control Group on the decreased sodium. Further, the results obtained from Experimental Group II had significant influenced on sodium than Control Group.

Result On Serum Pottasium

The following tables illustrated the statistical results to the effects of resistance training, surya namaskar and combined training with almond supplementation supplementation on potassium of obese school children and ordered adjusted means the groups under study

TABLE –II:Computation Of Analysis Of Covariance On Serum Potassium (Scores in mmol/l)

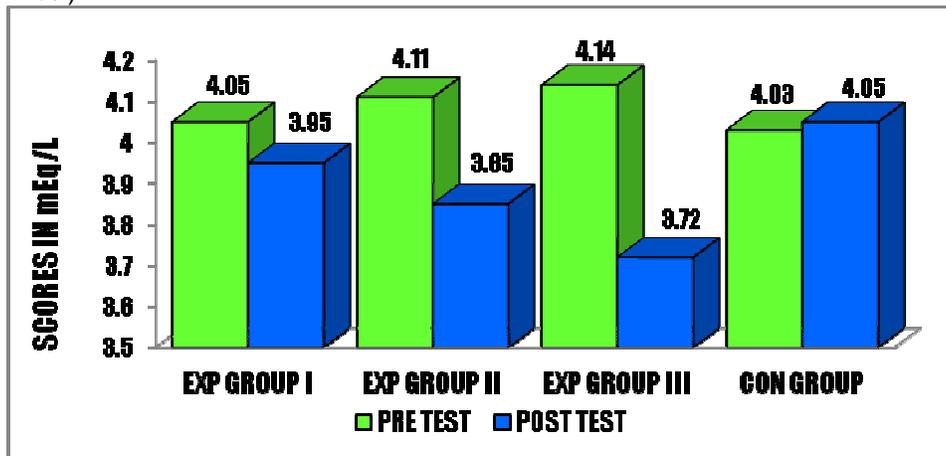
| Means | Exp Group I | Exp Group II | Exp Group III | Control Group | SV | SS | df | MS | Obtained 'F' |
|--------------------|-------------|--------------|---------------|---------------|----|------|----|-------|--------------|
| Pre test | 4.05 | 4.11 | 4.14 | 4.03 | B | 0.12 | 3 | 0.04 | 1.27 |
| | | | | | W | 1.70 | 56 | 0.03 | |
| Post test | 3.95 | 3.85 | 3.72 | 4.05 | B | 0.89 | 3 | 0.30 | 26.16* |
| | | | | | W | 0.64 | 56 | 0.01 | |
| Adjusted post test | 3.95 | 3.84 | 3.70 | 4.06 | B | 1 | 3 | 0.33 | 35.71* |
| | | | | | W | 0.51 | 55 | 0.009 | |

*Significant. F ratio for 3 and 56 = 2.77 and 3 and 55 = 2.77 (0.05 level)

Table -li (A):Computation Of Scheffe's Post Hoc Test Ordered Adjusted Final Mean Difference Of Serum Potassium(Scores in mmol/l)

| Control Group | Experimental Group I | Experimental Group II | Experimental Group III | MD | CI |
|---------------|----------------------|-----------------------|------------------------|-------|------|
| 4.06 | 3.95 | - | - | 0.11* | 0.10 |
| 4.06 | - | 3.84 | - | 0.22* | 0.10 |
| 4.06 | - | - | 3.70 | 0.36* | 0.10 |
| - | 3.95 | 3.84 | - | 0.11* | 0.10 |
| - | 3.95 | - | 3.70 | 0.25* | 0.10 |
| - | - | 3.84 | 3.70 | 0.14* | 0.10 |

Figure 2bar Diagram Showing The Pre And Post Test Means Of Serum Potassium (Scores in mmol/l)



Discussion On The Findings Of Serum Potassium

In this work, the analysis of covariance of potassium was carried out in three different Experimental Groups with the inclusion of resistance training, surya namaskar and combined training with almond supplementation. The same analysis was carried out in another group called the Control Group without inclusion of training. From these analyses, it was found that the results obtained from the Experimental Groups had significant influences in the potassium. It was interesting to note that the results obtained from Experimental Group III (combined training with almond supplementation) had more significant effect than Experimental Group I (resistance training with almond supplementation), Experimental Group II (suryanamaskar training with almond supplementation) and Control Group on the decreased potassium. Further, the results obtained from Experimental Group II (suryanamaskar training with almond supplementation) had significant influence on potassium than Control Group.

Conclusions

Within the limitation of this study, the following conclusions were drawn. It was concluded that twelve weeks resistance, suryanamaskar and combined training with almond supplementation helps to reduce serum sodium and serum potassium level significantly in the obese school children. But particularly the combined training group had significantly decreased the reduce serum sodium and serum potassium level in the obese school children than resistance and suryanamaskar training groups.

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Effect of interval training with yoga an aerobic Endurance among middle and long distance runner's performance of Hyderabad district

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Abstract

Endurance is described as the capacity to resist fatigue during repeated low-intensity contraction. The application of endurance is the ability to counter fatigue produced by the strength load components of an activity over a prolonged period of time. Since performance levels are greatly reduced without the vital contribution of strength, it is an important physiological contributor to over all athletic performance. Dominant endurance quality must be taken into account when setting and implementing the tasks of an athlete's endurance training. Middle and long distance specific endurance training programmes must attempt to establish the appropriate maximal endurance qualities. For Middle and long distance runners the dominant performance strength quality is endurance it is integrated into the performance outcome of the middle and long distance event. Modern scientific methods of training players or team place greater responsibility on the coaches and physical educators.

Introduction

Interval training involves multiple bouts of exercise at higher intensities than could be maintained by an athlete for durations comparable to those used for endurance training programs Aerobic Endurance Training There are several different types of aerobic endurance training - each with a different, specific outcome and suitable for different events and sports. The duration, frequency and intensity of sessions vary with each form of training leading to different physiological adaptations within the body. The table below summarizes the main types of aerobic endurance training and suggested parameters.

SIGNIFICANCE OF THE STUDY

The study brings out the influence of interval training on aerobic endurance and anaerobic endurance among middle distance runners performance. The study also brings out the influence of interval training on aerobic endurance and anaerobic endurance among long distance runners performance. The study discovers the most effective endurance between anaerobic and aerobic through interval training. The study also discovers the most benefited in terms of performance between middle and long distance runners. This study aims to provide the selected interval training program that can be used to improve endurance among middle and long distance athletes and coaches in real time.

PROCEDURE AND METHODOLOGY

The purpose of this study is to look at the effect of interval training for developing endurance among the middle and long distance runners of Hyderabad and to analyze the effects it has on athletes. First, it will identify the main components emphasized in middle and long distance training regimes, such as training methods. The next section will focus on the findings of research related to middle and long distance training regimes.

Selection of the Subjects:

Total 30 middle distance and 30 long distance runners regularly participating in the inter collegiate athletic meet in the events of middle and long distance of Hyderabad.

Selection of the Variables:

Evaluate the aerobic and anaerobic endurance on middle distance runners and long distance runners. To discover the effect of selected interval training program for enhancing the endurance components (aerobic and anaerobic) among long and middle distance athletes.

Aerobic variables

Vo2Max, Maximum heart rate

Anaerobic variables

Anaerobic capacity, Anaerobic fatigue

Peak power output (PP), Relative peak power output (RPP)

Cooper Vo2 Max test

To undertake this test you will require:

400 metre track, Stopwatch, Whistle, Assistant

This test requires the athlete to run as far as possible in 12 minutes.

The athlete warms up for 10 minutes

The assistant gives the command "GO", starts the stopwatch and the athlete commences the test.

The assistant keeps the athlete informed of the remaining time at the end of each lap (400m)

The assistant blows the whistle when the 12 minutes has elapsed and records the distance the athlete covered to the nearest 10 meters.

Scoring: There are Cooper test norm tables for general guidelines for interpreting the results of this test for adults. There are also several equations that can be used to estimate VO_{2max} (in ml/kg/min) from the distance score (a formula for either kms or miles):

$$VO_{2max} = (35.97 \times \text{miles}) - 11.29 \quad VO_{2max} = (22.35 \times \text{kilometers}) - 11.29.$$

| Brief scheme of training for the middle distance | | | |
|---------------------------------------------------------|---|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic | 1 | 20% | General conditioning – work in the gymnasium sprint drills (may be with weighted jacket), circuit training, light weight training with many repetitions, total training. |
| | 2 | 40% | Aerobic training; steady runs of 12-16 Km over varied terrain |
| | 3 | 10% | Extensive interval training-10-12 repetitions of 100,200,300m at moderate effort with jog recovery of 1-2 minutes. |
| | 4 | 10% | Interval training 15 minutes easy running interspersed with fast shorts stretches, up and down hill runs and moderate speed longer stretches. |
| | 5 | 20% | Pace endurance 3-6 sets of 1000 to 2000M at 75% effort with 4-6 minutes stretches. |
| Specific | 1 | 10% | Hill runs: 10-15 repetitions of about 100-300M moderate slope, active recovery either short 2-3 minutes or long 5-10 minutes. |
| | 2 | 40% | - steady runs at anaerobic threshold of 8-12 Km. |
| | 3 | 20% | -speed endurance: 4-6X (2-3 sets of 3-5 repetition) of 300-500M at 90% effort with recovery of 3 and 9 minutes |
| | 4 | 10% | Interval training -6-8 KM. |
| | 5 | 20% | - Intensive interval training (faster than basic period). |
| Competition | 1 | 30% | steady runs, Interval training or easy (regenerative) runs |
| | 2 | 20% | Intensive interval, less repetitions, and faster than in previous period and in sets of 5, recovery up to 3 minutes. |
| | 3 | 10% | Speed 6-8 fast repetition of 100M-150M, with recovery of 6-7 minutes. |
| | 4 | 40% | Competition pace, at a shorter than race distance, 2-4 repetitions at racing pace with at least 10-15 minutes recovery. |
| | 5 | 10% | Competition one per week but some time at other distance. |

Statistical Procedure:

In first step, descriptive statistics was employed in which Mean; SD, Minimum and Maximum scores will be computed. The required statistical calculations will also be computed with the help of SPSS software. The descriptive calculation and 't' test will be computed. Then, both the groups will be tested to observe the differences among the selected variables. The level of significance will set at .05 level of confidence.

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The Importance of Social Media in Sports

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Abstract

Social media is changing the way sports stars, clubs and fans are interacting with each other. From live-tweeting games, creating snarky memes and cheerleading from the web sphere, spectators are no longer simply watching sport, and fans can often get news, insights and commentary straight from the source. Singaporean commentator Walter Lim says that social media and sport is 'a match made in heaven'. The instantaneous, intimate and interactive nature of social and mobile technologies make them perfect platforms to fuel our sporting desires. Throughout the program, students receive valuable hands-on training in their focal area that prepares them for fulfilling careers as sports commentators, broadcasters, content creators and managers in the sports media world. Students learn how sports media messages are distributed and consumed; what role self- and government regulation play in sport industry; how consumers of sports media are influenced by sports news and sports organization messaging; and the role of sports in selling products as well as promoting ideas. The aim of this lesson is to find out how the media affects sport itself, as well as teams and individuals (Equivalent to UK GCSE Physical Education) Key Word: Importance, Positive Effects, and Negative Effects.

Introduction

Sports media students learn about the process of communication within the sporting world. They build a foundation based on sports writing, broadcasting, online media, advertising and video production, and learn the differences between content rooted in journalism and content rooted in organizational communication.

While fans have taken to social media to share their love of sport, some sporting clubs and athletes are finding it more challenging. If social media is making it possible for fans to be more engaged, it's also making it possible for sporting professionals to be more accountable for their public comments and the way in which they, in return, engage with their fans and wider community. Social media platforms pose a minefield for some users. Posts and updates by sports officials and athletes that could at best be described as 'incautious' are resulting in those individuals being questioned in the media and sometimes being reprimanded and penalized.

Importance

Mobile technologies and social media are transforming sports and sports businesses. Here, Andrew Cave and Alex Miller chart a digital revolution. More than half a million people converge on the Wimbledon Championships each year. While the focus is on the grass courts, businesses traditionally seek to benefit from hospitality, sponsorship and networking. However, some of the biggest opportunities to access current and potential customers through the tournament now lie away from SW19 through digital and social media that also offer greater reach and direct engagement.

By engaging fans via social media, sports rights holders can open new communication channels with their audience that can be measured and valued as a new commercial opportunity with sponsors. Businesses that get involved through sponsorships and social media promotions, meanwhile, benefit from increased brand affinity and loyalty.

Yet sports clubs and businesses are only beginning to appreciate the potential that this offers. Barcelona has become the world's largest sports club on social media with followers expected to approach 150 million this year. Last year, it worked with sports marketing agency IMG to examine what value social media adds to its shirt sponsorship rights. Over one weekend, there were 61 million web impressions of the Qatar Foundation's sponsorship of the club's shirts.

"We found there was an extraordinary amount of value that the shirt sponsor of Barcelona was receiving on social media, which wasn't really factored into the sponsorship," says Rob Mason, managing director of IMG Consulting, IMG's advisory and brand strategy and activation division. "Our work there told us that social media is the next great frontier for sports sponsorships. But sports rights holders need to understand their social media value, and sponsors need to know what they want from it."

Such understanding is developing rapidly, as is the technology to make it happen. In motor racing, the Formula E Championship for electric cars has introduced FanBoost, where fans vote for their favorite driver to have a power boost in a race. Alejandro Agog, chief executive of Formula E Holdings, says: "Through social media, fans are having a real impact on the result of a race. It's no longer 100pc about the skill of the driver and performance of the car. It's also about fans' input." Golf has also dived into social media and digital technology. "This has been the biggest sea change for all sports rights holders in the past few years," says Mark Lichtenhein, the PGA European Tour's head of television, digital media and technology. "We now have a dialogue with the fan base. We never had that before. We were just a business-to-business industry selling our content to broadcasters and rights to sponsors."

Mobile phones and tablets have allowed social media to flourish and now football stadiums such as Liverpool's Anfield and the Etihad Stadium, home of Manchester City, offer fans Wi-Fi, enabling not only more interactions at live events but more commercial activity, too. Spectators now have the ability to make additional purchases or seat upgrades, for example, from the venue.

The challenge for businesses is to find ways of measuring the value of social media

Denise Taylor, chief information officer for AEG, which owns the lease on the O2, says: "There is so much business potential. There are opportunities for revenue generation whether through ticketing platforms where we can offer up sales on tickets, or build products based on having more customer data." "You have to look more holistically in terms of how it adds value to the brand, its audience reaches. An investment in digital media may come back through other revenue streams. The more popular your product is, the better rights values you can attract."

Technology is crucial to sport-based businesses, whether that's ticketing software to optimize venues' capacity, e-commerce to raise merchandising sales or stadiums being able to project different advertising boards to different world markets from the same events. These initiatives and many others will be explored as the Business of Sport Series progresses.

The media includes any form of promotion of sport, such as:

TV and Radio - Show (or commentate on) matches and competitions. There are also highlights; documentaries and quiz shows about sports!

Cable and Satellite TV - These show events on a pay-per-view basis

Ceefax and Teledex - Have up-to-date information about events in the world of sport

Internet - All teams and major athletes have their own websites where you can find all kinds of information about the team/athlete/matches

Newspapers and Magazines - Print predictions and results, as well as articles about athletes and clubs

Books and Films - Biographies are big business for ex sports players

Technology is really important to the coverage of sport in the media. Not only does it allow all of these forms of media to be possible, but it also allows features like photo finishes, instant replays, split times etc.

Positive Effects

The media coverage of sport has good effects:

Money - Media companies pay for the rights to show a sporting event. Also, sports shown on the tv generate more sponsorship

Education - People learn the rules of the sport from watching it on TV

Role models - Seeing good sports people on TV and in newspapers makes them a role model for people to look up to

Inspiration - Media brings sport to people who may not normally get to experience it otherwise. This can encourage people to get involved

Coaching aid - Watching professionals on the TV can help you see how a technique should be performed which could help your performance

Negative Effects

The media can also have a negative effect on sport:

Bias - Only the really popular sports get much attention on the TV and in newspapers etc. This doesn't help encourage people into the less popular sports

Lack of Attendance - For matches that are shown on TV, ticket sales often drop

Overload - There is a lot of sport on TV nowadays, some say too much!

Attention - Sport stars often complain of too much attention being paid to their private lives

Demands - The media can put pressure on the organizers of sporting competitions to make the viewing experience better for TV audiences. For example, in a previous Olympics, the marathon was run at a time which suited TV companies, even though it was at the hottest time of day!

Conclusion

Sport is a social activity: its production, distribution and reception can best be understood from the perspective of a sociological history. Originally conceived to solve computational problems in science, defense, and business computer system now augments many human activities, including communication and social interaction. Today, millions of people use information technology to work, play, read, learn, connect and express themselves.

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Yoga: Balancing Healthy & Stress-Free Life

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Introduction:

Yoga is a traditional system of health, holistic living and an ancient science which originated in India with its roots in tradition and culture of this country. It has evolved thousands of years ago by the Saints and Rishis. The practices of Yoga are widely used globally now by everyone to meet out the increasing challenges which are responsible in changing the health care needs. Yoga is the centre of attraction for everyone all over the world due to its simplicity, cost effectiveness and efficacy in the management of lifestyle as well as psychosomatic disorders. Yoga is a combination of physical postures, breathing exercises and meditation to improve and develop one's inherent powers in a balanced manner.

People from different walks of life are now more aware about Yogic practices and its role not only in preservation and promotion of positive health, but also in the prevention and management of various diseases/conditions. Scientists and other medical professionals have realized the importance of Yogic lifestyle for the prevention and management of stress induced and other psychosomatic disorders. The benefits of Yoga are time-tested, highly economical, simple and useful for all, including the youth leading a more healthy, meaningful, balanced and stress free life.

The popularity of Yoga has reached beyond India and the practices of Yoga are performed in many countries by the youth. Yoga has no restrictions of region, religion, caste, creed and nationality. It is open for all. United Nations has declared 21st June as 'International Day of Yoga'.

Health is defined as being "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" according to the World Health Organization (WHO). It also suggests a fourth dimension i.e. "spiritual well being". Overall health is achieved through a combination of physical, mental, emotional, social and spiritual well-being.

Here, starts the role of Yoga. It develops our personality in a holistic and balanced way i.e. on physical, mental, emotional, social and spiritual planes of living at the same time. Its regular practice enhances our capacity and improves the level of confidence. Yoga has the power to transform the youth in leading a more healthy, balanced, stress free and meaningful life. It educates the person on do's and don't's (five Yamas and five Niyamas). Yogic practices are easy to follow and can be integrated well in our daily routine as per the need. The industrialization and fast metropolitan lifestyle have increased the challenges before us like pollution, stress, anxiety and so on. Dealing with these, our lifestyle has become faster and more mechanical from early morning to late night. The dietary habits are not healthy. Preserved food, fast food, junk food, high calorie diet as well as smoking, alcohol, drugs and lack of proper rest and exercise have made us impatient resulting in the development of various psychosomatic diseases such as diabetes, hypertension, arthritis, back pain, etc. The number of mental illnesses is increasing day by day due to these reasons.

It is found that a large number of people are suffering from depression, schizophrenia, disorders related to use of alcohol and drugs. Yoga as a non-invasive mode of treatment, treats the body and mind effectively with its different practices like asanas, pranayama, shatkarmas, surya namaskara, and meditation. Various mental illnesses like anxiety, depression, neurosis, behavioral impairments/disorders, anorexia, etc. and other psychosomatic ailments like headache, bronchitis, asthma, diabetes, autoimmune disorders, etc. can very well be managed through the practice of Yoga.

Stress and anxiety are one of the most common problems of youth. Stress is either physical or mental with external or internal causes. Major life changes, work or school, relationship difficulties, financial problems, being too busy, and children and family may be considered as common external causes of stress. While chronic worry, pessimism, negative self-talk, unrealistic expectations/perfectionism, rigid thinking, lack of flexibility, all-or-nothing attitude are considered as common internal causes of stress. Emotional imbalance, instability and anxiety are some of the common manifestations of mental stress. These are psychosomatic disease conditions with complaints like headache, insomnia, twitches, skin rashes, digestive disorders, peptic ulcers, colitis, palpitation, high blood pressure, coronary thrombosis, dysmenorrhoea etc. Regular practice of asanas, pranayama and meditation has a great role in its management. Asanas stabilize and relax the body and mind, open new thought processes and develop focus which ultimately changes the attitude of the practitioner. Practice of deep breathing, yoganidra and meditation decreases the pessimistic attitude and brings calmness, internal pleasure and cultivates optimistic thoughts. Some healthy lifestyle practices can be incorporated by youth in their lifestyle to make it more healthy, balanced and stress free. These practices are good for maintenance of health and prevention of diseases. These are simple, cost effective, easy to follow and can be integrated in the daily routine as per the need. The natural lifestyle enhances the love and affection between each other and develops a bond of emotions. It promotes calmness, tranquility and optimistic attitude to mind. Some of these practices are:

Balanced Eating: The first and most important practice is balanced eating. Our food must be in natural form as far as possible. Our diet must consist of fresh, seasonal fruits, fresh, green leafy vegetables and sprouts, etc. in sufficient quantity. Being alkaline, these foods help in improving health, purifying the body and rendering it immune to diseases.

Fasting: Fasting is an important technique of health preservation. It is a process of giving rest to the whole digestive system. During this process, the vital energy which digests the food, is completely engaged in the detoxification of the body. It is an excellent remedy for removing the disorders of body as well as mind. Weekly fast on fruit juices or fruits is advised to maintain good health.

Regular Exercise: Regular exercise in some form or Yogic practices is essential for good health. It increases the blood circulation and makes the body flexible. It reduces the ageing process and maintains sound health. For this purpose, we may select morning walk, running, jogging, practice of Yogasana, Surya Namaskara, Pranayama or some physical work like gardening, etc. according to our capacity and choice. Exercise activates the body, boosts energy, develops new and optimistic thoughts along with other physiological benefits. Dr. Henry Lindlahr, a well known Naturopath says that "Exercise stirs up the morbid accumulations in the tissues, stimulates the arterial and venous circulation, expands the lungs to their fullest capacity, thereby increasing the intake of oxygen and most effectively promotes the elimination of waste and morbid materials through the skin, kidneys, bowels and the respiratory tract".

Rest: Apart from Yogic practices, proper rest i.e. quality sleep is necessary for good health. A good sleep gives us freshness, makes us happy and light. Incomplete sleep results in stress, anxiety and deteriorates health. Hence, quality sleep should never be compromised.

Adequate water drinking: Adequate water drinking is good for prevention of disorders and maintenance of health. Water dissolves all the toxicity of body and cleanses the body internally.

Some golden tips on healthy lifestyle practices to be followed by all are:

1. Go to bed early at night and wake up early before sun rise (Brahmamuhurta). Try to have seven hours of sound sleep.
2. Take simple, balanced and sattvic diet.
3. Reduce the quantity of sugar, salt, heavy meals, red chilly, more spices and pickles, etc. Minimize the use of tea and coffee. Stop consumption of all intoxicants. Use of ghee and oil may be minimized. Vegetarian diet is good for a Yoga practitioner.
4. Fix the meal time. Take breakfast of fruits or sprouts or dalia after half an hour of Yoga practice in the morning. Whole wheat roti, simple steamed vegetables, salad and butter milk may be taken for lunch. The quantity of vegetables and salad should be more than roti.
5. Water is not advised with the meals. Make a habit of water drinking half an hour before and half an hour after taking food.
6. Daily morning or evening prayer or meditation must be practiced. It relieves the tension and stress; energizes the body and mind and brings positive attitude towards life.
7. Internal and external cleansing of body through Yogic practice and Shatkarmas is important.
8. Have faith in Nature. It will make you positive and confident.
9. Avoid the habit of overeating. Follow the principle of no appetite, no food. Eat when hungry and stop eating with some appetite remaining. Keep weekly fasts by taking seasonal fruits.
10. Maximum walk on foot is advised. This is beneficial for body and mind.

Empowering Community Groups Towards Health Improvement Through Physical Activity At Ediget School In Boditti And Ade Charake School In Damot Gale District, Wolaita Zone, Southern Ethiopia

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Introduction

It is evident that, in spite of astonishing progress on many fronts, we continue to face a number of serious health challenges. Heart disease, blood pressure, asthma, diabetes, cancer, accidents, drug use, and mental illness all are important concerns for each of us, even if we are not directly affected by them. Also becoming increasingly troublesome are the complex problems of environmental pollution, violence, heart care costs and, the international scope of HIV/AIDS epidemic, as well as other sexual transmitted diseases.

A group – oriented form of health promotion is offered in many communities. This approach to improving health through risk reduction is directed at empowering community groups, such as school community, sport offices and church congregations or a neighborhood association, so they can develop, operate, financially sustain their own programs with little direct involvement of health promotion specialists. The key to successful community- based health promotion is empowerment. In the context of health, empowerment refers to a process in which individuals or groups of people gain increasing control over their health. To take control over health matters, individuals and groups must learn to “liberate” themselves from a variety of barriers that tend to take charge of their lives, regardless of any current forces that discourage positive health changes. Empowered people and groups do not blame individuals or environmental realities for health conditions but focus on producing constructive change through dialogue and collaboration.

Health enhancing properties of physical activity are evidence-based and widely accepted. Physical activity is any bodily movement that is produced by the contraction of skeletal muscle and that substantially increases energy expenditure. It includes active living, active play, sport, physical education and active transport. Current Department of Health and Children guidelines recommend that children and youth participate daily in at least 60 minutes of moderate to vigorous intensity physical activity (> 60 min MVPA). This activity should be developmentally appropriate, involve a variety of activities and be enjoyable .

Physical activity is important to children’s current and future health, and adherence to the physical activity guidelines produces a range of direct and indirect benefits. It assists in the control of body weight by increasing energy expenditure, this is important in teaching children and young people how to achieve a healthy ‘energy balance’, and avoid developing adult obesity. It reduces the risk of developing premature cardiovascular disease, type-2 diabetes, metabolic syndrome and some site specific cancers. Weight bearing physical activity is important in bone formation and remodeling. In addition, physical activity reduces depression and anxiety (especially in shy children), enhances mood, self-esteem and quality of life (4-15).

Participation in regular health enhancing physical activity has also been found to reduce rule-breaking behavior, and to improve attention span and classroom behavior. It has positive effects on academic performance, including achievement in math tests and reading, academic grades and perceptual skills.

Involvement in sport and physical education can play a significant role in the enrichment of a child's social life and the development of social interaction skills (4-14). Childhood provides a great opportunity to influence attitudes and participation levels positively towards physical activity. A child who emerges from school with confidence in their physical body and skills and who has been exposed to positive experiences in physical activity is more likely to adhere to an active lifestyle as they age. For this research the following objectives listed as general and specific.

General Objectives

To investigate and create awareness about the contributions of physical exercise among school children by implementing complementary preventive measures in Ediget Boditti and Ade chrake Kebele in Damot Gale District, Wolaita Zone.

Specific Objectives

Describe the developmental tasks of Student's, and assess their current or past level of progress in mastering them.

Compare wellness and health promotion, noting both the differences and the similarities between the two concepts.

Recognize how the delivery of health care influences definitions of health

To reduce the health problem burden in schoolchildren in particular and the whole community in general.

To enhance knowledge and skill of health professionals (health officers, sport officers, and laboratory technicians) in the area through training.

To aware community members about the physical activity and its contribution prevention and control methods

Statement Of The Problem

As a profession the researcher participated in all town and Woreda of Wolaita; in different activities to serve community, on other hand the researcher was observed that in the school of Wolaita Zone most of the students were not actively participate in physical activity. They were not asking question, doing activities and participating actively in field activities. This may indicate most of them were not motivated and no awareness to run this process. This condition implies that there was a need to improve student's motivation in the school as well as in the field physical education teaching learning process.

As general there were so many factors that may affect physical activities in school , especially in field sport such as teachers approach, students interest, absenteeism, lack of awareness, shortage of imputes e t c .However this project were conducting by understanding the major problems of children by focusing the urgent need improving students motivation to provide effective physical activities.

Methodology

The subjects in two schools were oriented on the whole experimentation and its importance. This research would be implemented in randomly selected area at Ediget in Boditti and Ade Charake Kebele in Damot Gale District in Wolaita Zone, Southern Ethiopia. Wolaita Zone is located at about 350 kms south of Addis Ababa, the capital city of Ethiopia. The zone covers a total area of 4541 sq. km and has an estimated population of 1.7 million (CSA, 2007). Wolaita is one of the most densely populated Zones in the country with an average of 290 people per square kilometer. The majority of people of the Zone earn their livelihood from subsistence farming (SNNPR, 2002).

Major activities

Authors of this research have already collected a baseline data on the improving health through physical activity. Most of the researche shows that there is clear difference between sport man and non sport man, so by using data gathering instrument to identify the problem that affect health promotion from early childhood.

Why targeting in schools?

Schools are selected for the most part because school-age children are known to have the highest adaptation of physical activity of any age group (10-15, 17-18). In addition, the most cost-effective way to deliver physical activity regularly to children is through schools because schools offer are readily available, extensive and sustained infrastructure with a skilled workforce that is in close contact with the community. In terms of feasibility, with support from different health centers and sport office workers, teachers will be trained on how to deliver the activity safely. We believe that teachers need only a few hours training to understand the rationale for body movement, and to learn how to give out the activity according to the children age.

Training Activities

| Age Group – 10 to 15 | Age Group – 17 to 18 |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| General Warming Up | General Warming Up |
| Jumping Jacks: Areas Effected: Leg and arm muscles | Acceleration sprints: Affected areas: cardiovascular endurance, Strength |
| Squat Thrust with Push: Affected Areas: Leg and arm muscles | Jumping Jacks: Areas Effected: Leg and arm muscles |
| Rope jumping: Affected Area: cardiovascular endurance, Strength, lower and upper parts of the body | Rope jumping: Affected Area: cardiovascular endurance, Strength, lower and upper parts of the body |
| Alternate Toe Touch: Affected Areas: Legs, arms, back and shoulders | Squat Thrust with Push: Affected Areas: Leg and arm muscles |
| Shuttle Runs With Ball: Affected areas: Total body | Alternate Toe Touch: Affected Areas: Legs, arms, back and shoulders |
| Trunk Rotations: Affected Areas: Back, sides and hips | Shuttle Runs With Ball: Affected areas: Total body |
| High Knees with Sipping Rope: Affected areas: Thigh and back muscles | Balancing Drills with ball: Affected areas: Muscular balance and high levels of neuromuscular co-ordination |
| Alternate Legs With Skipping Rope: Affected Areas: Thigh, back and arm muscles. | Complete Game: (Football and Volleyball) Affected areas: whole body fitness. |

Result

Teachers would be trained to understand the benefits of physical activity in schools, to train, and what the effects is. Parents, community leaders and local sport man was communicated about the objectives of the physical activity in schools and what they should expect.

Monitoring and Evaluation

Routine monitoring of physical activity would be involved the recording of basic process indicators: the number (100 %) of children treated and the quality of activity used in order to ensure routine planning, and to reduce types of diseases we can protect through physical activity.

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A Study Of Endurance Ability Among Foot Ball Players And Hockey Players Of Gulbarga University

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Introduction:

Aerobic Endurance is the amount of oxygen intake during exercise. Aerobic Endurance is the time which you can exercise, without producing lactic acid in your muscles. During aerobic (with oxygen) work, the body is working at a level that the demands for oxygen and fuel can be met by the body's intake. The only waste products formed are carbon-dioxide and water which are removed by sweating and breathing. Aerobic exercise is physical exercise of relatively low intensity and long duration, which depends primarily on the aerobic energy system. Aerobic means "with oxygen", and refers to the use of oxygen in the body's metabolic or energy – generating process. Many types of exercise are aerobic, and by definition are performed at moderate levels of intensity for extended periods of time. Aerobic exercise comprises innumerable forms. In general, it is performed at a moderate level of intensity over a relatively long period of time. For example, running a long distance at a moderate pace is an aerobic exercise, but sprinting is not. Playing singles tennis, with near continuous motion, is generally considered aerobic activity, while golf or two person team tennis, with brief bursts of activity punctuated by more frequent breaks, may not be predominantly aerobic. Some sports are thus inherently "aerobic", while other aerobic exercises, such as fartlek training or aerobic dance classes, are designed specifically to improve aerobic capacity and fitness.

Football refers to a number of sports that involve, to varying degrees, kicking a ball with the foot to score a goal. Hockey is a family of sports in which two teams play against each other by trying to maneuver a ball or a puck into the opponent's goal using a hockey stick. The Purpose of the the present study to find out the Aerobic endurance among Male Foot Ball and Male Hockey Players of Gulbarga University in India.

Method:

The sample for the present study is Male Thirty Foot Ball and Male Thirty Hockey Players from various colleges of Gulbarga University in India. The data will be collected separately from Foot Ball and Hockey Players. The Subjects were made to Run 12 Min Run Cooper Test for endurance

The Cooper test is a test of physical fitness. It was designed by Kenneth H. Cooper in 1968 for US military used in the original form; the point of the test is to run as far as possible within 12 minutes. To undertake this test you will require:

400 meter track ,Stop Watch ,Whistle

Technical Official

The subjects given 10 minutes for warm up.

The assistant gives the command "GO", starts the stopwatch and athlete commences the test

The Technical Official keeps the athlete informed of the remaining time at the end of each lap

The Technical Official blows the whistle when the 12 minutes has elapsed and records the distance the athlete covered to the nearest 10 meters

Results and Discussion:

The Table No.1 showing the Mean, S.D, Standard Error, t-ratio of Foot Ball Players and Hockey Ball Players in Cooper Test.

| Results of 12 min Cooper Test | N | Mean | Std. Deviation | Std. Error Mean | t | df | Sig. (2-tailed) |
|-------------------------------|----|---------|----------------|-----------------|------|-------|-----------------|
| Foot Ball Players | 30 | 3050.00 | 219.71 | 49.13 | 1.69 | 58.00 | 0.10 |
| Hockey Ball Players | 30 | 2950.00 | 137.71 | 30.79 | | | |

The Foot Ball Players Mean Performance is 3050 Meters and the Hockey Players Mean performance is 2950 Meters. There is mean difference of 100 Meters between Foot Ball and Hockey Players. The Results of the study shows that Foot Ball Players are having the good endurance compare to Hockey Players.

Conclusion

This study shows that Foot Ball Players are having the good endurance compare to Hockey players.:It is concluded that Male Foot Ball Players are having good endurance compare to Male Hockey Players.

Reccomendations:

Similiar studies can be conducted on female players and other team game players and individual game players.

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About The Mountain Bike Cycling Regulations And Training For Better Performances

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Introduction :-

Cycling is a poor man's transport, hobby of rich man and medical activity for the old man. In most of the cases, a child life starts with a cycle, two wheeled and tri-wheeled irrespective of his or her status of being from a rich, middle or poor family, hence, it may be mentioned that the cycling activity starts in the beginning of childhood and it becomes a sports at 10-12 years of age. In cycling sports is three type - one is Road cycling, two is Track cycling and three is Mountain bike cycling (MTB). Cycling Federations of India organizes the national Mountain bike cycling championship once in year for all age groups but to have better talents to improve further, separate national championship for Elite (19 yrs. & above), junior (Aged 17 & 18yrs.), sub-junior (Aged 15 & 16 yrs.) and youth category (14 yrs. & below). Cyclists have opportunity to participate separate in MTB national championship which were being held regular every year. Two events of Mountain bike –One is Time Trial and two is Cross Country Mass Start.

Race Route :- Race route is consists of up and down hill, climbs, forest and plantation, river crossing and an even road covered also. Circuit for the event shall be between 4 to 6 Km. and the distance of the event may be fixe as per the distance of circuit.

Cycle:- Cycles look similar to the bikes you see being ridden around town. They can be made of steel, aluminium. Frame is alloy lite tubing, Fork is adjustable, Group set 24 speed and Disc brakes 160 mm rotor aspect.

Rider Wear:- Rider wear is the following protection.

-Back, elbow, knee and shoulder protectors made of rigid materials.

-Protection for the nape of the neck and the cervical vertebrae.

-Broad full-length trousers made from rip-resistant material incorporating protection for the knees and calves or broad-cut shorts made from rip-resistant material plus knee and calf protectors with a rigid surface.

-Long sleeved shirt, Full finger gloves, Helmet and Padding on shins and thighs.

Regulations :-

(1) First and foremost the riders are required to have licence issued by cycling federation of India, through which the rider is bound by the regulations of UCI and of cycling federation of India and has to accept any drug and blood tests for which they provide as well as the exclusive compliance of the C.A.S.

(2) The checking and control of licences and the signing of licences and the signing on takes place in an office at the event, other registration formalities completed and handlebar numbers distributed.

(3) In mass start events, riders must be called to the start no earlier than 20 minutes before the scheduled start of the race this period can be reduced where the number of riders allows. Five minutes before the call-up an announcement must be made over the public address system to inform riders of the fact, and again three minutes beforehand. The riders line up in the order in which they are to be called to the start line. The number of riders on each line is decided by the president of the commissaires' panel and supervised by a commissaire.

The rider himself decides which position on the line to take once the riders are lined up, warm-up is excluded inside or outside the start area. The start is given by the start commissaire using the following procedure: Warnings 3,2,1 minutes and 30 seconds before the start, then a final announcement that the start is given within the next 15 seconds. A starting pistol or if none is available, a whistle is used to give the start.

(4) Conduct of riders; a rider must act in a sporting manner at all time and must permit any faster rider to overtake without obstructing.

(5) If a rider exits the course for any reason, he/she must return to the course at the same point from which he/she exited. If the president of the commissaires' panel deems that the rider gained advantage, the rider is disqualified.

(6) The riders must respect nature and must make sure that they do not pollute the course.

(7) Anyone who is found to have altered the course has his/her accreditation removed or in case of a rider is disqualified.

(8) The use of tyres fitted with metal spikes or screws is not permitted.

(9) During MTB races no traditional road handlebars may be used.

(10) Riders must start in a single group.

(11) The president of the commissaires' panel in collaboration with the organizing director, decides on the distribution and location of feed/technical assistance zones.

(12) Physical contact between feeders/mechanics and riders is permitted only in feed/technical assistance zones. Water bottles and food must be passed up to the rider by hand by the feeder or the mechanic. The feeder or mechanic is not permitted to run alongside his rider.

(13) No rider may turn back on the course to reach a feed/technical assistance zone. Any rider doing so is disqualified. Only within the feed/technical assistance zone itself, a rider may turn back without obstructing other competitors.

General Training :-

Mountain bike cycling as an activity or as a sport can be euphoric, it surely has the potential to make life more exciting than it has ever been, it has many health benefits as we are all aware of - if you have decided to participate in a bike race or event it demands commitment and requires advance preparation. Since races or events can get extremely competitive and dangerous, It's important that you put enough time and effort to get yourself conditioned to put your body to strenuous demands and challenges you may have to face when competing at any level.

Fundamentals Training :-

(1) Train hard and training smart. (2) Commit to a systematic training plan. (3) You are what you eat; have a good balanced diet. (4) Train hard and recover harder to get the best out of you training. (5) Effort rate and heart rates are very personal, be honest to you self and do not compare it with others. (6) Know your fitness, know your strengths and weaknesses, capitalize on your strengths and work on your weaknesses. (7) Enjoy the process to deliver performance and you can win.

Specific Training :- Focus on longer duration efforts during your and early build periods to improve cardiovascular and muscle endurance. Specific training is three workouts.

Workout-1. Long Duration Force Efforts :- Do this workout one or two days a week. Can be use for short or long workouts.

Choose sections of uninterrupted road, hills and flats and shift into a gear ratio that allows you to work more force while maintaining a cadence in the 65-75 rpm range.

Target hr intensity in zones 3-4/ target power in zone 3.

Maintain these efforts for 5-10 minute periods of time, working both standing and seated.

Between each effort spin in zone 2 for 10-15 minutes or longer if needed with a natural cadence and deep breath.

Workout-2. Steady tempo Efforts :- Do this workout one or two days a week can be use for short or long workout.

Choose sections of uninterrupted road, ideally on hill grades of 4-7%.

Sit and spin into the zone 3 range for 10-20 minute periods or longer if feeling good. Work mainly seated spinning with a fluid cadence and a perceived exertion level of 5-7 (On a scale of 1-10).

Between each effort spin in zone 1-2 for 10-20 minute with a natural cadence and deep breath as you ride into the early race season, creating more specific road workout will provide more benefit.

Workout-3. Short Steep Climbs:- Do this workout one or two days a week ideally used for short duration workout of 1-2 hours.

Choose short steep hills around 5-1 mile long or work 3-5 minute efforts on longer distance hills.

Work into hr zones 4-5A, seated and standing/target power in zones 4-5. Work each hill with either a fast seated spin or standing with a bigger gear and a perceived exertion level of 8-9.

Between each hill effort spin in zone 1-2 for 10-20 minutes with a low perceived exertion and deep breath.

Weight Training for MTB:-

The difference in style, technique and substance between downhill and cross-country means that each puts unique demands on the physiological systems of the body, in recent years the value of weight training for cycling has become more clearly accepted and is advocated by nearly every coach and physiologist in the business. The gains in muscle endurance, strength and flexibility associated with lifting are numerous and extremely beneficial.

Upper Body Weight Training :-

Upper body work is often neglected by aspiring cyclists. "Why bother? I only my legs riding," is a common axiom of the rookie cyclist. Upper body strength is particularly important in mountain biking. Arms and shoulders are repeatedly jarred and twisted while negotiating obstacles and must have the requisite strength and endurance to avoid making costly mistakes.

This is especially true late in a ride or race when fatigue plays an expanded role in decision making. Additionally core body strength is vitally necessary to move the bike and rider during all phases of cycling. Specific exercises to improve as a cyclist include shoulder work, arms, chest, abs and low back.

Lower Body Weight Training :-

Cyclist calves shaped by long hour in the saddle. These are the tools of the cyclist. Every rider, no matter their age or ability, must rely on the legs to create the force that turns the pedals that spin the gear that push you down the road. The best way to develop cyclists' legs is to ride. Riding is your best form of muscular conditioning but other things help as well.

Squats, with excellent form and attention to the intensity/duration relationship, help develop the core of strength necessary to be a successful cyclist. Hip, sled, lunges and any other multi-joint exercise are also strongly recommended, as long as form is maintained throughout. Isolated exercise like extensions and curls are useful for fine tuning strength and endurance but should not be mainstays of a lifting program. You can do effective strength work on the bike in general this involves riding a big gear (Hard to pedal) at very low RPM (50-60rpm) for short periods of time (3-7 minutes). This simulates many of the above mentioned strength training exercises but should not be used as a replacement for lifting.

Deciding when to lift is as important as what to lift is. For recreational riders strength training can be included as part of an overall healthy lifestyle. Many riders will follow a 3 to 4 day per week cycle of a lifting and cycling program throughout the year. This split works well for those do most of their riding on the weekends. By putting the highest intensity workouts early in the week a rider can go into the weekend fresh for riding and take advantage of the extra recovery time usually forced on them during the week by work.

Conclusion:-

In conclusion, training on the road bike is a great tool for a competitive mountain biker road cycling will allow you to build greater fitness without the abuse of the trail. But always keep in mind to be fast on the trail, you must ride the mountain bike. There is no substitute for learning how to power a bike through the wilderness, especially while in a race. Cycling being a highly technical and equipment based sport, is getting very popular among the gen next. A proper training methodology is bound to bring good and instant result in a high performance effort.

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Doping in Sports- A chemist perspective

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Abstract:

A true sporting contest is a struggle between two or more opponents abiding by the same standardized rules with the aim of establishing the true differences in sporting skills. Olympics motto states that "The important thing in games is not to win but to take part. Contrary to the goal of Olympics in today's real sports world, sports performers are encouraged by their family, governments, coaches, managers and of course, fans to win at all costs. So naturally there is lot of pressure on athletes and coaches. There are many ways in which athletes seek to gain advantage over their rivals like using the best coaches, training techniques, dietary supplements, fitness, etc. These methods of gaining advantage are fair because they are within the rules. The use of artificial enhancements and methods to gain an advantage over others in competition is simply cheating. This is called Doping, which is fundamentally contrary to the spirit of sport. In competitive sports doping refers to the use of banned substances on the IOC/WADA-list of prohibited substances by athletic competitors. The use of banned drugs to enhance performance is considered as unethical, and therefore prohibited, by most international sports organizations. The reasons for the ban are mainly the health risk of performers and against the "spirit of sport". In this paper we reviewed and discussed the therapeutic use, Performance enhancing effect and the ill effects of IOC/WADA-list of prohibited substances on the health of performers. Key Words: Doping, IOC/WADA-list of prohibited substances, artificial enhancements.

Introduction

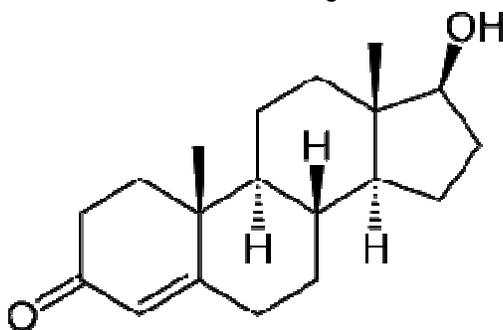
According to Historical reports the use of drugs in sports are there from the very creation of sport itself. In ancient times, athletes were used to feed diets and given treatments considered to be beneficial, means greatly increase their physical power but at the risk of their health. From ancient usage of stimulants and strength-building substances in sport to the more recent controversies, views about use of drugs in sports have been varied widely from country to country over the years. People identify the need of restrictions or ban about drug use in sport started in 1920s. In 1928 the International Association of Athletics Federations (IAAF) - athletics' world governing body - was the first international sports federation to ban doping.

The reasons for the ban are mainly the health risks involved with performance-enhancing drugs to athletes, to provide equality of opportunity for athletes, and the exemplary effect of drug-free sport for the public. In 1966, the world governing bodies for cycling and football introduced doping tests in their respective world championships and testing in Olympic Games came in 1968. By the 1970s, most international federations had introduced drug-testing. Anti-doping authorities strongly believe that using performance-enhancing drugs is against the "spirit of sport". According to them, substances and methods are banned which meet at least two of the three following criteria: if they enhance performance artificially, create a threat to athlete's health, or violate the spirit of sport.

With the attention, and debate over performance-enhancing drugs (PEDs), we all want to know how performance-enhancing drugs affect the human health. Because it's the major area of concern for the health of athletes. PEDs have the ability to drastically alter the human body, biological functions, and alter the performance in certain instances. These drugs, however, can be extremely dangerous and, in certain situations, fatal also. WADA list of prohibited substances are Banned Androgenic agents- Anabolic agents, Hormones, Growth factors and related substances, Stimulants, Diuretics and masking agents, Narcotics and cannabinoids, Glucocorticoids, Beta blockers and Blood doping. WADA declared Therapeutic Use Exemptions (TUEs) to denote banned substances that athletes may be "required to take to treat an illness or condition". These exemptions are regulated by the International Standard for Therapeutic Use Exemptions (ISTUE). The present review highlights the Therapeutic use, Performance enhancing effect and ill effects of PEDs on the health of performers.

Discussion

Anabolic-Androgenic steroids: Anabolic steroids, also more popularly known as anabolic-androgenic steroids (AAS), are steroidal androgens that include natural androgens like testosterone as well as synthetic androgens that are structurally analogous to effects of testosterone. They are anabolic and increase protein within cells, especially in skeletal muscles, development and maintenance of masculine secondary sexual characteristics such as the growth of the vocal cords and body hair.



Structure of Testosterone

Therapeutic use: AAS have been used by physicians for many purposes, Bone marrow stimulation, Growth stimulation, stimulation of appetite, Hormone replacement for men with low levels of testosterone; Androgens are given to many boys distressed about extreme delay of puberty.

Performance enhancing effect: Body weight in men may increase by 2-5 kg during the AAS usage, as a result of short-term (<10 weeks) which may be attributed mainly to an increase of lean mass.

Both muscle hypertrophy and the formation of new muscle fibres have been observed. However during this period improvements in the range of 5–20% of baseline strength, depending largely on the drugs and dose used as well as the administration period. Stimulation of appetite and preservation and increase of muscle mass, AAS have been used by men and women in many different kinds of professional sports to attain a competitive edge or to assist in recovery from injury. These sports include bodybuilding, weightlifting, shot put and other track and field, cycling, baseball, wrestling, mixed martial arts, boxing, football, and cricket.

Potential side effects of anabolic steroid: Some of the Physiological side effects are impotence-Reduction in sperm production, Acne, Male pattern baldness, Liver Damage, Premature closure of the growth centres of long bones (in adolescents) which may result in stunted growth, and disruption of puberty in children. Some of the Psychological side effects are increased aggressiveness and sexual appetite, sometimes resulting in abnormal sexual and criminal behaviour, Withdrawal from anabolic steroid use can be associated with depression, and in some cases, suicide.

Peptide Hormones, Growth Factors, and Related Substances

A growth factor is a naturally occurring substance capable of stimulating cellular growth, proliferation, healing, and cellular differentiation. Usually it is a protein or a steroid hormone. The Growth factors are important for regulating a variety of cellular processes. Growth factors and hormones bind to various receptors on the target cell and induce signalling cascades that regulate physiological processes.

Therapeutic use: The primary medical use of these compounds varies, but includes treatment of cancer or aiding those born prematurely. Erythropoietin, which stimulates the growth of red blood cells, is used to treat anaemia associated with chronic kidney failure, cancer chemotherapy, and zidovudine (AZT) therapy in AIDS patients.

These agents also can be used to mobilize hematopoietic progenitor cells (hematopoietic stem cells) into the peripheral blood circulation in order to generate cells that can be harvested and used for autologous bone marrow transplant.

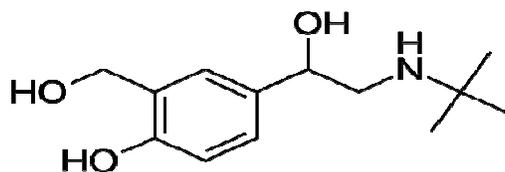
Performance enhancing effect: Human growth hormone produced naturally in the human body. Use of exogenous human growth hormone (HGH), via injection, was originally for medical purposes until athletes began abusing HGH with the goal of increasing their abilities.

Claims that growth hormone enhances physical performance are not supported by the scientific literature. Although the limited available evidence suggests that growth hormone increases lean body mass, it may not improve strength; in addition, it may worsen exercise capacity and increase adverse events. More research is needed to conclusively determine the effects of growth hormone on athletic performance.

Potential side effects: Some of the Physiological side effects are hypertension (EPO/hGH), blood cancers/leukemia (EPO/hGH), Anemia (EPO), strokes (EPO), heart attacks Pulmonary embolism (EPO), feminization (HCG), thyroid problems (hGH).

Beta-2 agonists

The beta-2 adrenergic agonists are a large group of drugs that mimic the actions of naturally occurring catecholamines such as norepinephrine, epinephrine and dopamine. Direct agonists directly interact with the adrenergic receptors, whereas indirect agonists typically stimulate the release of endogenous catecholamines.



Solbutamol

Therapeutic use: The beta-2 adrenergic agonists are used largely as bronchodilators in the management of asthma, both in control of acute symptomatic attacks as well as chronic, long term prevention and management. Activation of β adrenergic receptors leads to relaxation of smooth muscle in the lung, and dilation and opening of the airways.

Performance enhancing effect: Some studies have shown beta-2 agonists have performance-enhancing effects when consistently high levels are present in the blood. β_2 agonists are abused by athletes and bodybuilders as anabolic performance-enhancing drugs.

Potential side effects: Some of the Physiological side effects are Palpitations, Headaches, Sweating, Nausea, Muscle cramps, Nervousness. More severe effects, such as pulmonary edema, myocardial ischemia, cardiac arrhythmia, are exceptional.

Diuretics and masking agents

Chemically, diuretics are a diverse group of compounds that either stimulate or inhibit various hormones that naturally occur in the body to regulate urine production by the kidneys. A diuretic promotes diuresis, that is, the increased production of urine. This includes forced diuresis. There are several categories of diuretics. All diuretics increase the excretion of water from bodies, although each class does so in a distinct way. Examples of Diuretics are Acetazolamide, Metolazone, Thiazides etc. Examples of masking agents are Epitestosterone, Albumin, and Dextrin etc.

Therapeutic use: The primary medical use of these compounds is to treat conditions such as hypertension, kidney disease and congestive heart failure. Some diuretics, such as acetazolamide, help to make the **urine** more alkaline and are helpful in increasing excretion of substances such as **aspirin** in cases of overdose or poisoning.

Performance enhancing effect: Diuretics and masking agents are products that dilute or mask a urine sample used in drug testing or impair the excretion of a performance enhancing substance to conceal its presence in a urine sample. Masking agents eliminate fluid from the body to hide or mask a performance enhancing substance.

Diuretics reduce the concentration of a performance enhancing substance in the urine so the chance of detecting the performance enhancing substance is decreased. A common application of diuretics is for the purposes of invalidating drug tests and another use is to rapidly lose weight to meet a weight category in sports like boxing and wrestling.

Potential side effects: Some of the Physiological side effects are Dehydration, Muscle cramps, Dizziness or fainting, Drop in blood pressure, Loss of coordination and balance. The main adverse effects of diuretics are hypovolemia, hypokalemia, hyperkalemia, hyponatremia, metabolic alkalosis, metabolic acidosis, and hyper uricemia.

Stimulants

Stimulants (also referred to as psychostimulants) is an overarching term that covers many drugs including those that increase activity of the body, drugs that are pleasurable and invigorating, or drugs that have sympathomimetic effects.

Stimulants can have a wide variety of mechanisms. Many stimulants exert their effects through manipulations of monoamine neurotransmission. Monoamines are a class of neurotransmitter relevant in reward, motivation, temperature regulation and pain sensation that include dopamine, norepinephrine, and serotonin. Stimulants usually block the reuptake or stimulate the efflux of dopamine and norepinephrine resulting in increased activity of their circuits. Some stimulants, notably those with empathogenic and hallucinogenic effects alter serotonergic neurotransmission.

Therapeutic use: The primary medical use of these compounds is to treat conditions such as Attention Deficit Disorders (ADD/ADHD), asthma, narcolepsy, and obesity.

Performance enhancing effect: Stimulants are widely used throughout the world as prescription medicines as well as without a prescription (either legally or illicitly) as performance-enhancing or recreational drugs. Stimulants enhance the activity of the central and peripheral nervous systems.

Common effects may include increased alertness, awareness, wakefulness, endurance, productivity, and motivation.

Potential side effects: Some of the Physiological side effects are Insomnia, Anxiety, Weight loss, Dependence and addiction, Dehydration, Tremors, Increased heart rate and blood pressure, Increased risk of stroke, heart attack, and cardiac arrhythmia. In some cases psychiatric phenomenon may emerge such as stimulant psychosis, paranoia, and suicidal ideation.

Narcotics

Narcotics are plant-based products such as opium and its derivatives morphine, codeine and heroin, synthetic narcotics such as methadone and pethidine; and cannabis, coca and cocaine. There are many different types of narcotics. Synthesized drugs created with an opium base for use in pain management are fentanyl, oxycodone, tramadol, demarol, hydrocodone, methadone, and hydromorphone. New forms of pain medication are being created regularly.

Therapeutic use: In small doses narcotics have medical uses that include relieving severe pain and inducing sleep. While a sensation of euphoria and psychological stimulation are effects common to the use of narcotics.

Performance enhancing effect: Morphine, codeine, fentanyl, methadone and heroin opioids attach to mu opioid receptors in the central nervous system, preventing the brain from receiving pain messages. In addition to masking pain, they produce feelings of euphoria, invincibility and illusions of athletic powers beyond athletic ability. Narcotic analgesics decrease the sensation of serious injuries, allowing athletes to continue training for competition after serious injuries.

Potential side effects: Some of the Physiological side effects are A false sense of invincibility, Nausea and vomiting, Increased pain threshold and failure to recognize injury, Decreased heart rate, Physical and psychological dependence; leading to addiction

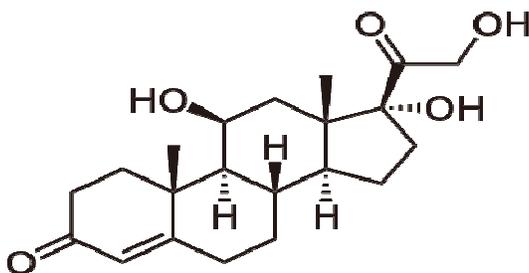
Cannabinoids (Marijuana)

A cannabinoid is one of a class of diverse chemical compounds that acts on cannabinoid receptors in cells that alter neurotransmitter release in the brain. Ligands for these receptor proteins include the endocannabinoids (produced naturally in the body by animals), the phytocannabinoids (found in cannabis and some other plants), and synthetic cannabinoids (manufactured artificially). There are at least 113 different cannabinoids isolated from cannabis, exhibiting varied effects.

Therapeutic use: Cannabinoids (Marijuana) is classified by Congress as a Schedule 1 drug under the Controlled Substances Act (CSA). This means that it has a high potential for abuse, no accepted medical use in the United States, and lacks accepted safety data for use under medical supervision.

Performance enhancing effect: Cannabinoids (Marijuana) affects metabolic processes such as appetite, immune function, pain sensation and reactions to stress. Depending on what kind of cannabis is being used, these effects can be extremely beneficial for an athlete. Cannabinol (another prevalent cannabinoid in marijuana) binds with a certain cannabinoid receptor in the brain that handles immune cells, making it great at increasing immunity in the body. On the other hand, cannabis can affect certain parts of the brain that can be detrimental to agility, which means it could hinder sports performance. Because of its differing effects on different people, making a decision about whether or not marijuana enhances sports performance is a huge judgment call.

Potential side effects: Some of the Physiological side effects are Increased heart rate, Impaired short-term memory, Slowed coordination and reaction of reflexes, Diminished ability to concentrate, Distorted sense of time and space, Respiratory diseases. Some of the Psychological side effects are Mood instability, impaired thinking and reading comprehension
Glucocorticoids



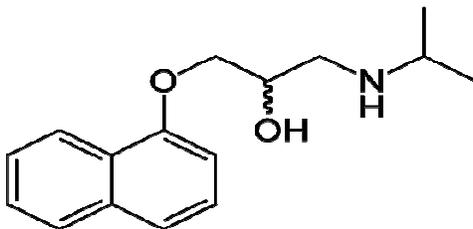
Glucocorticoids (GCs) are a class of corticosteroids, which are a class of steroid hormones. Glucocorticoids are corticosteroids that bind to the glucocorticoid receptor (GR), that is present in almost every vertebrate animal cell. The name glucocorticoid (glucose + cortex + steroid) is composed from its role in regulation of glucose metabolism, synthesis in the adrenal cortex, and its steroidal structure. Cortisol (or hydrocortisone) is the most important human glucocorticoid.

Therapeutic use: The primary medical use of these compounds is to treat allergies, asthma, inflammatory conditions, and skin disorders among other ailments. Glucocorticoids may be used in low doses in adrenal insufficiency. In much higher doses, oral or inhaled glucocorticoids are used to suppress various allergic, inflammatory, and autoimmune disorders. Inhaled glucocorticoids are the second-line treatment for asthma.

Performance enhancing effect: The misuse of Glucocorticoids in sports comes from its relaxation effects on the respiratory tract, and in larger dose, for its analgesic effects. From what we know or suspect it seems to have effects on increasing airflow in the lung by opening the airways, it also has an effect on reducing pain at high intensity exercise. There seems to be an effect on the body's metabolism below about 75% threshold which although not fully understood may help aid weigh loss while being able to continue training.

Potential side effects: There are a huge amount of known side effects. Fluid retention, low potassium, weight gain, muscle weakness, mood swings and even psychosis, diabetes, high blood pressure, ulcers, thin skin and easy bruising, stretch marks and osteoporosis/fractures are just a few.

Beta Blockers



Beta blockers are competitive antagonists that block the receptor sites for the endogenous catecholamines epinephrine (adrenaline) and norepinephrine (noradrenaline) on adrenergic beta receptors, of the sympathetic nervous system, which mediates the fight-or-flight response. Beta receptors are found on cells of the heart muscles, smooth muscles, airways, arteries, kidneys, and other tissues that are part of the sympathetic nervous system and lead to stress responses, especially when they are stimulated by epinephrine (adrenaline). Beta blockers interfere with the binding to the receptor of epinephrine and other stress hormones, and weaken the effects of stress hormones.

Therapeutic use: The primary medical use of beta-blockers is to control hypertension, cardiac arrhythmias, angina pectoris (severe chest pain), migraine, and nervous or anxiety-related conditions.

Performance enhancing effect: Beta-blocker that interferes with the reaction of nerve impulses inside the body, especially in the heart. As a result, the intake of Beta blockers (propranolol) causes the heart to beat slower, decreases blood pressure and calms the symptoms of anxiety. Some athletes use Beta blockers (propranolol) for their anxiety-reducing effects, resulting in steadier hands, an even heart rate and the increased ability to focus. But the drugs have an interesting secondary effect: They also mask anxiety by diminishing nervous sweat and trembling, which is exactly why marksmen are drawn to the drugs. If they have a steadier hand, they can perform better in competition.

Potential side effects: Some of the Physiological side effects are Lowered blood pressure, Slow heart rate, Sleep disorders, Spasm of the airways.

Blood doping

Blood transfusions. The primary use of blood transfusions and synthetic oxygen carriers are for patients who have suffered massive blood loss, either during a major surgical procedure or caused by major trauma. Erythropoietin is used in the treatment of anemia related to kidney disease. Transfusions also are given to patients who suffer from low red blood cell counts caused by anaemia, kidney failure, and other conditions or treatments.

Performance enhancing effect: There are three widely known substances or methods used for blood doping, namely, erythropoietin (EPO), synthetic oxygen carriers and blood transfusions. Blood doping is the practice of boosting the number of red blood cells in the bloodstream in order to enhance athletic performance. In many cases, blood doping increases the amount of haemoglobin in the bloodstream. Hemoglobin is an oxygen-carrying protein in the blood. So increasing hemoglobin allows higher amounts of oxygen to reach and fuel an athlete's muscles. This can improve stamina and performance, particularly in long-distance events, such as running and cycling. Many methods of blood doping are illegal, particularly in professional sports.

Potential side effects: However, misuse of these substances and techniques could lead to: Increased stress on the heart, Blood clotting, Stroke, with transfusions, there is an increased risk of infectious disease such as AIDS or hepatitis.

Conclusion

Doping in sport remains a serious and complex issue, keeping an athlete's health at risk, questioning the integrity of clean athletes and the reputation of sports. Doping affects all levels of athlete. It could also affect future generations who may be influenced by what their role models do. To protect the integrity of sport, the health of athletes, and young aspiring sports people around the world, we need a concerted and constructive approach to the fight against doping.

Everybody thinks that the doped athlete gains an advantage by enhancing their potential with the use of performance enhancing substances which is unfair in sports. Truly speaking today's sport is not fair because of unequal economical background of the athletes, unequal access to modern training methods, sophisticated equipment and best facilities. Lifting the ban on doping, as suggested by many people, would give all athletes the same starting point. However, such a move would not make sport fairer overnight, until economic inequality and hence the uneven distribution of doping drugs ends.

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Solutions To Reducing Female Students' Anxiety At Physical Education Classes

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Abstract

Health and intelligence are the most valuable possession of human beings as a sound mind is in a sound body. Exercising and sports have become an essential part in human's lives. Physical education (PE) at universities, thus, has been developed to improve students' physical well-being and shape their personalities. Yet, there are a number of students not interested in these classes. Using the Spilberger's State Trait Anxiety Inventory over 576 female students, we have found that there were 104 students (accounting for 18.1%) feeling anxious in which there were 2.3% feeling very anxious. The causes of this anxiety varied from the fear of failing course requirements, re-taking the course, late graduation, wearisome, anxiety after class hours, to inability to join their favorite PE classes. A number of measures were then suggested to reduce the students' anxiety: pre-class registration counselling, in-class counselling, course information proliferation to increase students' awareness, organizing activities in PE class hours to motivate students. Key words: physical education; anxiety at physical education; female students; solution to reducing anxiety; university.

Introduction

Physical well-being is the greatest treasure of human being. Being healthy means having everything. The International Charter of Physical Education and Sports, UNESCO 1978 said: "Every human being has a fundamental right of access to physical education and sport, which are essential for the full development of his personality. The freedom to develop physical, intellectual and moral powers through physical education and sport must be guaranteed both within the educational system and in other aspects of social life".

Physical Education (PE) develops the skills, knowledge, values and attitudes needed for establishing and enjoying an active and healthy lifestyle, as well as building student confidence and competence in facing challenges as individuals and in groups or teams, through a wide range of learning activities.

According to Scanlan, T. K., & Lewthwaite, R. (1986); Haskell, W. L., Lee et al. (2007), the 50-year (1900-1959) statistical analysis of American economists showed that once a country invests in its citizens, especially in PE and sports, it could increase its earnings and Haskell, W. L., Lee, I.-M., Pate, R. R., Powell, K. E., Blair, S. N., Franklin, B. A., Bauman, A. (2007), developing PE means developing people.

In Viet Nam, as regulated in the Constitution 1992 (Article 4), Decree No. 36/CT issued by the 7th Party congress: PE at school is an essential part of education as a whole, a foundation to develop sport talents, and an investment in human, as without physical wellbeing, human can not develop comprehensively.

With the motto of a healthy nation is a strong nation, a number of universities and colleges in Viet Nam have increased and diversified forms of education, including PE, such as regular content review; facilities improvement; staff's professional development; organizing in-class and extra-curricular activities, community and students' sport games and tournaments, etc. to inspire students' participation and increase learning efficiency in PE classes. The leading goal is to improve health for students and the community, reduce their anxiety at PE classes. However, taking PE classes at school still generates worrisome and anxiety for the undergraduate. A study on solutions to reducing female students' anxiety at PE classes is aimed at recommending methods to inspire students' participation, and motivating their activeness, creativity in protecting their health.

Theoretical foundation on anxiety and anxiety reduction

Internationally: in the late 19th century, human's mental health concerned a number of researchers. Among those mental illnesses, anxiety and depression were considered mental disorders. The 8th and 9th International Classification of Disease (ICD 8, 1986; ICD 9, 1978) classified anxiety disorder as a psychological illness. In 1992, ICD 10 suggested anxiety disorder was related to the body's performance. In 1994, the American Psychiatric Association recommended the DSM-4 (Diagnostic and Statistical Manual of Mental Disorders) describing anxiety disorder as a negative state affecting human's performance, deficiency of physiological and mental activities.

Apitzsch, E. (Ed.). (1983); Steptoe, A., & Fidler, H. (1987); Simon, J. A., & Martens, R. (1979); Hatfield, B. D., & Landers, D. M. (1987) described anxiety as: Anxiety is a natural reaction of human being against difficulties or natural and social threats they have to overcome to survive. According to Atkinson, J. W., & Feather, N. T. (1966); Beuter, A., Duda, J. L., & Widule, C. J. (1989), anxiety is an alarming signal, warning an upcoming danger, helping people to employ all measures to cope with the threat.

A study by Dinh Dang Hoe (2005) said that anxiety is a natural reaction (normal) of human being against difficulties or natural and social threats they have to overcome, to survive and developing. Nguyen Minh Tuan (2006) described anxiety disorder as an illness without a clear objective, longlasting, and affecting the patient's life.

Expressions of anxiety: According to Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970); Coddington, R. D. (1972). Steptoe, A., & Fidler, H. (1987), anxiety had both physiological and mental expressions. In terms of physiological aspect, patients with anxiety disorder tend to suffer from: headache, stomachache, sweating, leg and hand shaking, insomnia, eating disorder, fainting, etc. A study by Fenz, W. D. (1988); Gould, D., Petlichkoff, L., Simons, J., & Vivera, M. (1987); Lazarus, R. S., & Folkman, S. (1984); Smith, R. E., & Smoll, F. L. (1989) added: physical expressions of anxiety disorder include behavioral, emotional, and cognitive expressions. In terms of behavioral aspect, the patient tends to refuse to move, offend, and sigh. In terms of emotional aspect, common expressions include disappointment, boredom, sorrow, stress, etc. Regarding cognitive aspect, common expressions include inability to think, calculate, and mistaking. Therefore, people with anxiety have physiological, mental (cognitive – emotional – behavioral) expressions which could be assessed using observation and calculation methods.

Female students' anxiety at PE classes is a mental state suffering from stress and worrisome in a long time (two weeks and above), which makes them feel tired and unable to function normally in daytime activities with such expressions as headache, stomachache, leg and hand shaking, wearisome, stress, depression, inability to think positively.

Solutions to reducing levels of anxiety

A study on solutions to reducing levels of anxiety by Scanlan, T. K. (1986). Scanlan, T. K., & Lewthwaite, R. (1986). Roberts, G. C. (1986) showed that people with anxiety disorder require specific and repeated explanation to the causes of their worry. Other studies by Rahe, R. H., & Arthur, R. J. (1978); Robinson, T. T., & Carron, A. V. (1982). Sarason, I. G. (1984) recommended a variety of measures to reduce pupils' levels of anxiety: re-distribution of exercises; increased recess time during class hours; video-based learning; providing instruction in advance; organizing more games; relaxing activities; etc.

This paper focuses on describing current situation of female students' levels of anxiety and solutions to reducing their anxiety at PE classes at the University of Da Nang (UD).

Methods.

We used the Charler D. Spilberger (1989) State Trait Anxiety Inventory, including 40 items with 4 increasing levels from 1 to 4. The first 20 items are used to assess state of anxiety, the second 20 items are used to assess personality of anxiety. There are 20 items to be normalized before calculation. Questionnaire –A set of questions are developed to study levels, expressions, causes, impacts of female students' anxiety in certain situation and solutions to reducing levels of anxiety at PE classes. All collected data is analyzed using SPSS 22.0 software.

Table 1: Research participants

| Universities | No. | Weight | Subject | No. | Weight |
|----------------------------------------|------------|---------------|----------------|------------|---------------|
| University of Education | 182 | 31.45% | Soccer | 55 | 9.63 |
| University of Science and Technology | 154 | 26.7% | Basketball | 43 | 7.47 |
| University of Foreign Language Studies | 103 | 17.9% | Athletics | 48 | 8.38 |

| | | | | | |
|----------------------------------------|-----|--------|------------|-----|-------|
| University of Economics | 128 | 22.22% | Volleyball | 122 | 21.19 |
| Faculty of Medicine and Pharmaceutical | 9 | 1.56% | Aerobics | 133 | 23.03 |
| | | | Badminton | 119 | 20.72 |
| | | | Ping pong | 26 | 4.43 |
| | | | Chess | 30 | 5.15 |
| Total | 576 | | | | 576 |

Among 576 students taking part in the research, the University of Education has the most number of participants of 182 students (accounting for 31.45%), while Faculty of Medicine and Pharmaceutical has the least, with only 9 students. The number of students taking part in Aerobics (23.03%) and Volleyball (21.19%) were the most while the least number were in ping pong classes with only 4.43%.

Results

Current situation of UD female students' anxiety

Common levels of anxiety: Using the Charler D. Spilberger (1989) State Trait Anxiety Inventory to study the current situation of anxiety, we found that among 576 participants, 2.3% students felt very anxious; 15.9% students felt anxious with average points at 40 and above; 64.2% had normal levels of anxiety while 19.9% felt happy, positive and had no expressions of anxiety in the previous 2 weeks.

Therefore, about 18.1% student participants felt anxious. Compared with previous research findings in which 15-20% population felt anxious, the rate of UD students with anxiety was relatively consistent.

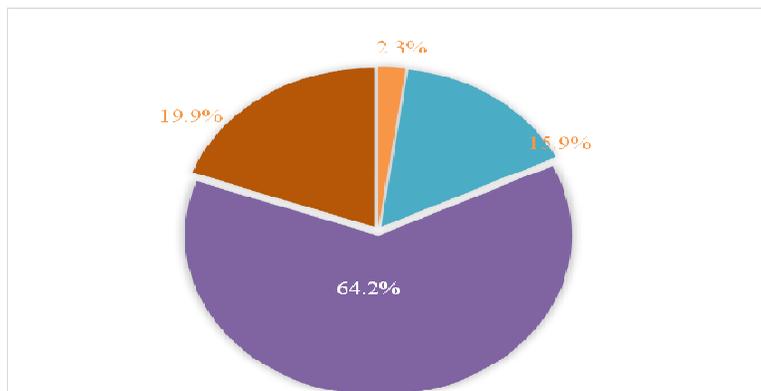


Figure 1: Levels of UD female students' levels of anxiety

The rate of students from the University of Education, Faculty of Medicine and Pharmaceuticals, and University of Economics feeling anxious at PE classes were 23.8%, 17.5%, and 13.5% respectively. Compared with levels of anxiety of female students from UD's member universities, we found that students from University of Education worried the most (averaging at 3.11); followed by those from Faculty of Medicine and Pharmaceutical (at 2.80), followed by students from University of Foreign Language Studies (at 2.58).

| | University | Rate of students with anxiety (compared with total number of students) | Average | SD |
|---|----------------------------------------|------------------------------------------------------------------------|---------|------|
| 1 | University of Education | 23.8% | 3.11 | 0.34 |
| 2 | University of Science and Technology | 11.3% | 2.3 | 0.38 |
| 3 | University of Foreign Language Studies | 13.2% | 2.58 | 0.42 |
| 4 | University of Economics | 13.5% | 2.52 | 0.37 |
| 5 | Faculty of Medicine and Pharmaceutical | 17.5% | 2.80 | 0.46 |

Table 2: Rate of students with anxiety at PE classes according to criteria of UD’s member universities

Compared with levels of anxiety of students in different academic years, we found that freshmen worried the most with 3.15%, followed by seniors (at 3.22%). Meanwhile, average anxiety levels of sophomores and juniors were 2.82 and 2.68 respectively.

In in-depth interview, a student named T.L.G said: “I am a first-year student. I am so afraid of PE classes. I often feel breathless and tired because the senior students told me studying this PE class would be very challenging and a lot of us would fail the class”.

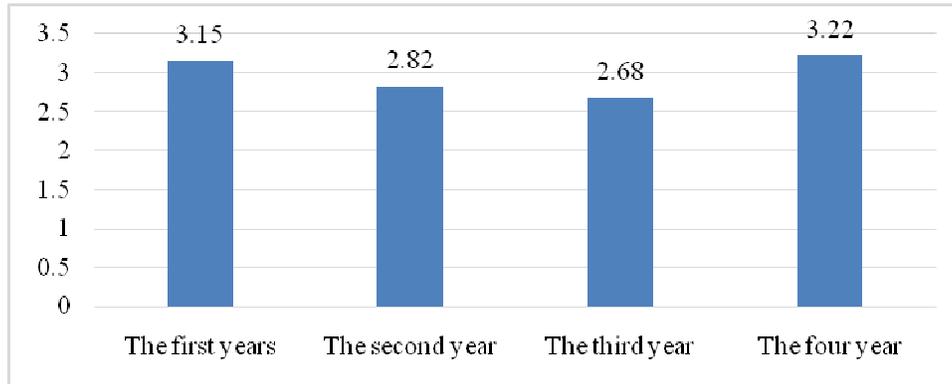


Figure 3: Levels of anxiety of students according to years

Levels of anxiety according to subjects: athletics worried the most number of students (at 19.2%), followed by soccer (at 15.1%), chess (at 13%), basketball (at 11.8%). The subjects that worried the least number of students included: aerobics (at 9.2%), badminton (at 10.3%), and volleyball (at 10.4%).

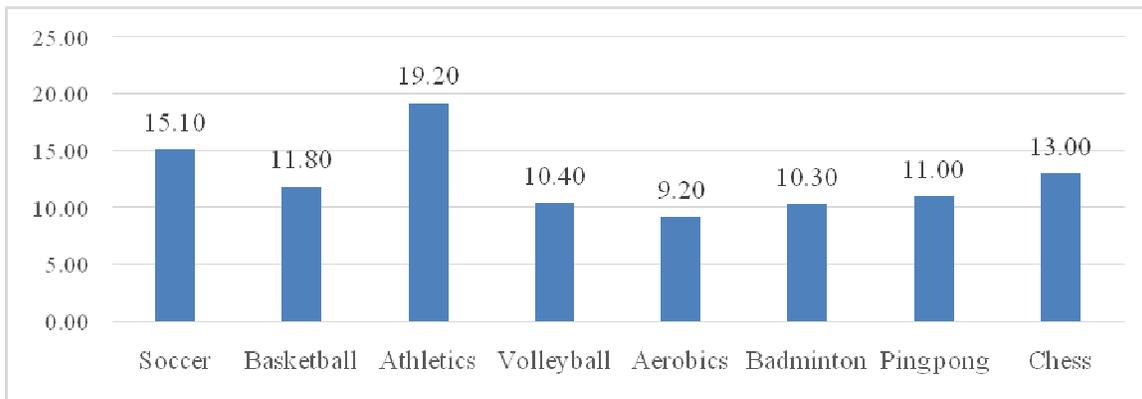


Figure 2: Levels of anxiety of UD’s female students according to subjects

Female students’ expressions of anxiety at PE classes: in the two-week survey, the participants’ expressions were: reluctance to attend class (at 3.8%); showing up late for class (at 3.32%); feeling tired and upset (at 3.28%), decreasing learning efficiency (at 3.24%). Other expressions included dizziness, headache, de-motivation at learning, and making mistakes in learning, etc. The ICD-10 suggests that people with such negative expressions in two weeks in a row are considered those suffering from anxiety disorder. Causes of students’ anxiety at PE classes: the causes of anxiety at PE classes varied: fear of re-taking course, failing exams, late graduation, tiredness after PE class hours, inability to attend favorite PE electives, inappropriate PE class timetable, etc.

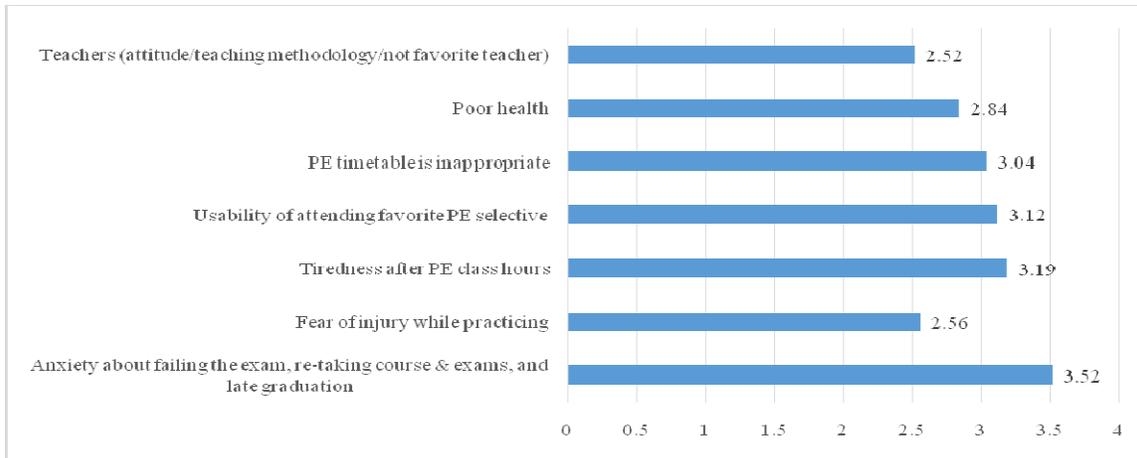


Figure 3: Causes of students' anxiety at PE classes

Solutions to reducing female students' anxiety at PE classes

From the results of the current situation of female students' anxiety and survey on solutions to reducing levels of anxiety, the paper suggests a number of solutions as follows. The most favorite solution was: "it is necessary to increase students' awareness about the significance of PE subjects to protect their health", at 85.2%. This means teachers need to explain, in one way or another, about the importance of the PE subject to students who have to explore for information of the course by themselves to study better. The second most favorite solutions (accounted for 83.1%) was: "it is necessary to organize relaxing and funny class hours". The recommended activities include: mini-games, relaxing exercises, stretching moves according to subjects, etc. Especially, teachers are expected to guide and consult students on appropriate subjects, training methods, and avoiding unnecessary stress. The third most favorite solutions (accounted for 67.3%) was: "Feedback mailbox should be installed so that teachers can modify their teaching methods accordingly", as some teachers set unrealistically high requirements or have inappropriate interactions with students so students mostly attend class just because they have to. Besides, students suggested a number of feasible solutions such as encouragement from teachers, division of exercises into mini-tasks, using PE video-based learning to facilitate students to practice in one way or another to improve their health.

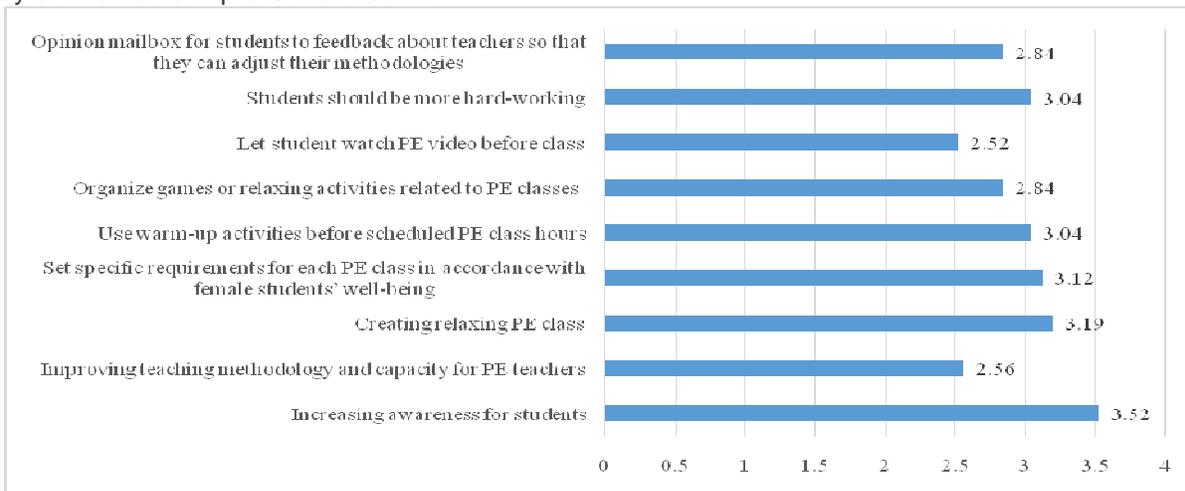


Figure 4: Solutions to reducing female students' levels of anxiety

Conclusion and recommendation

The research findings, using the Spilberger's State Trait Anxiety Inventory, indicate that there were 18.1% female students feeling anxious at PE classes at UD in which students suffered most from athletics. The expressions included headache, stomachache, inability to concentrate, tiredness, upset, sweating, losing learning efficiency. Causes of anxiety were: fear to fail course requirements; failing exams, late graduation; after-class tiredness and stress; inability to attend favorite PE subjects, etc.

Anxiety at PE classes resulted in: wrong perception of the significance of PE subjects; depression at learning PE subjects; disappointment with teachers, etc. From the above research findings, we suggest a number of recommendations to reduce female students' levels of anxiety as follows. There should be counseling activities to increase female students' awareness of meaning and goals of PE classes. These activities can be included in sport news bulletin, PE club meetings, workshops, and in-class activities. Teachers are expected to adjust, improve course content and teaching methodologies to make PE subjects more suitable and interesting with students. In-class activities should be organized to inspire students. Teachers are expected to cheer, encourage students in PE classes so that the students can understand the meaning and significance of the PE course. It is necessary to establish certain sport clubs such as badminton, volleyball, basketball, soccer as these team sports create good chances for students to support and back up each other in the training sessions. Consequently, this paper research finding shows the current situation of female students' levels of anxiety according to academic years, number of years of the course, causes and impacts of anxiety disorder on students' lives. Especially, it also recommends solutions for teachers and students to reduced female students' anxiety disorder.

Acknowledgement

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Mass Media as the Driving Power of Sport Industry

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Abstract

This study aimed to analyze the roles of the mass media as the driving power of sport industry and also develop the guideline of using mass media in driving sport industry. The existing literatures were reviewed for data collection. The required information was gathered through in-depth interview participants who were the executives and sport industry workers, focus group and public hearing among experts and scholars. Moreover, qualitative data were used in the study and presented in form of descriptive analysis. Results of the study were shown as follows: There are 5 types of mass media that play an important role in driving sport industry as follows: 1) print media (specialized newspaper and popular newspaper) 2) radio (sport talk and sport games analysis shows) 3) Television (live sport games program) 4) electronic media (internets, social network through smartphone 5) movies (films and documentary). These mass media report sport related information for entertaining and inspiring people. Additionally, the advertising of goods, products and sport services are also reported in all kinds of mass media above. As results, people consume more goods, products and sport services related to sport industry. The development of guideline of using mass media in driving sport industry consists of 6 aspects as follows: 1) news presentation skills 2) expressing opinion techniques 3) entertainment 4) education 5) public relations and advertising 6) corporate social responsibility.

Keywords: Mass Media /Sport Industry.

Introduction

Sport industry is one of industries which generated revenue for the developed countries such as United States of America, United Kingdom and China because it is a large industries comparing with others. As well as market share is obviously top range in the world. Currently, there are two major sections of the sport industry including, product and service. Thailand's sport industry is taken in account to be an important sector to develop country. In 2009, the value of this industry per GDP is 3.09 trillion baht or 39% and the most of them is for export. However, there are a few products which require advanced technology and rely on imported machinery, technology and spare parts. Then, Thailand has developed a Master Plan of Thailand Industrial Development 2012-2031 which is focus on developing capabilities and potentials for international competitions to generate revenue into the country from Small and Medium Enterprises (SMEs) in order to create jobs for the people, to balance between economic and social aspects to be the foundation toward sustainable development. Therefore, creating domestic industry is the first step in the development of Thailand's sport industry to ASEAN, Asia and the world in the future. While sport business makes involved people to earn more revenue, it will be a cause of economic expanding. Many companies will be interested to be sport sponsors such as football, volleyball, golf, tennis and badminton to create a product image to be well known by using sports as the media. When sports are popular, trend of audience will increase, and the advertising of products and services of the sponsor will be more popular. Then, demand of sports products will be increased which affect to more expanding of sport trade also. Furthermore, the higher productivity will be resulted to lower the production costs. Therefore, the entrepreneurs could be able to continuously earn profit and development sports products and as well as export sports products to compete in global market.

As a result, using of innovation and communication is one of the successful factors of business management and new innovation. Currently, communication is taken into account of the key strategy. Although the process is lately or simultaneous occurring with the production and services, the communication is a strategic management leads information through target customers which drives promotion, encourages sales volume, persuade more supports and create a good image for the organization. Even though, nowadays business sector accept that communication is one of the most significant tools, the media management model is still diverse both of strategic planning and tool selection including content of the communication. In this case, the marketing communication expert still could not find fixed formula on communication management to respond the business which is focused on successful and sustainable development. Moreover, sports and entertainment businesses are both influent for the current social and economic activities and being high trend because sports and entertainment business could create more enjoyable, challenging and attracting customer to watch continuously. That is the desire of the manufacturer to offer information and advertising through the large channel of widely audience. Thus, to develop Thailand sport industry to international level, mass media is the key role to promote, support and develop Thailand sport industry to worldwide. Nevertheless, perceiving of all dimensions of sport news could be able to create the popularity of the sport industry in Thailand. Consequently, this study is emphasized on mass media in driving the sport industry to adopt information to develop the mass media insport industry in Thailand to be stable, prosperous and sustainable.

Objectives

To analyze the role of the mass media and driving of the sport industry.

Methodology

Qualitative research in the term of descriptive research was applied to analyze, prepare guidelines for mass media in driving of the sport industry by collected data from theoretical concepts, literature reviews, related academic researches, academic articles, focus groups, and public hearing.

Tool of Research

The research tools were applied from document studying, open-end questionnaire, focus group meeting and public hearing.

Results

Role of mass media in driving the sport industry and according to studies was found as follow;

1. Print media which is the most major role in driving power of the sport industry are the newspaper including, 1) the specialized newspapers such as Siam Sports and Star Soccer.
2. Radio which has an important role in driving the sport industry including, sport talk and sport games analysis shows, the sports advertising, live sports radio broadcasts and the sports games .
3. Television which has an important role in driving the sport industry including, live sports, sport talk and sports news analysis, the sports advertising and sports games TV show.
4. Electronic media which has a significant role in driving the sport industry comprising, internet, social network, email, mobile phone searching and chat.
5. Movie media which has an important role in driving the sport industry including, film, documentary film, educational film, short film or short drama and the music VDO with telling the story.

Guidelines for using mass media to drive sport industry according to the study were found following;

1. News presentation skills

The mass media has to present a variety of sports newsthrough appropriate original media such as, printing media, television, radio, film and electronic media as a new media by providing a positive feedback to creatively motivate consumers to follow up, reduce the suggestion of guide to sports betting, increase more time of sport news reporting in all media types, focus on youth sports to develop towards professional sports and also publicize the media to more recognize and continue. Moreover, the mass media should select media content and the appropriate duration for people to follow up the sports news. Also, sports news in the media must be concerned about competition because of advertisers and sponsors factors. That is why sports news is focused on the audience interest first and then using new-coming technology to attract attention.

2. Expressing opinion

Mass media should creatively report the positive news rather than negative news to encourage consumers to follow up including the show which organized by brought successful and unsuccessful athletes and presented in a positive way both successful and unsuccessful cases. As well as, expressing opinion of mass media via various media must avoid impolite words and horrible images to provocative or obscene.

3. Entertainment

The live of each sportstype should be interviewed athletes, coach and sport fan to create more colorful and raise entertainment by adding some content gathered with games show, movies, music and music videos through various media channels to entertain the audience by inserting sports knowledge and promoting sport industry together.

4. Education/Knowledge

The mass media and related organizations have to prepare the development program to promote innovation in order to increase more added value of the sport industry on the basis of knowledge and creativity by focusing on promoting related people in the sport industry to carry out research and development and also adopt innovate for commercial purposes which will be value added to the sport industry. In addition, the mass media should take advantages of the Thailand 4.0 policy which focuses on developing into large-scale industries to generate high incomes for the country in order to achieve economic development goals which is driven by innovation. Moreover, the mass media should create a database to drive the sport industry including database of categorized citizen, sports professionals and mass media literacy in driving the sport industry.

5. Public relations and Advertising

Sports-loving trend using public relations and advertising via all types of media could be created by setting as a national agenda. Moreover, public relations and advertising could be done by creating good role models of each type of sport to attract Thai people through various media channels and also could be taken an opportunity or idol, such as in case of "Toon Body Slam" running for advantage facilitating and driving the sport industry.

6. Social Responsibilities

The using of media as a tool to convey good culture according to the policy of promoting sports tourism by presenting via aspect of family, friendship, morality, lifestyle and beautiful love which leads to create a good image of the country in the foreigner's perspective and reflecting the perception of the gentleness of our culture that could be resulted of "Thailand Sports Tourism Fever" as same as many countries around the world.

Discussions

Role of mass media in driving the sport industry

1. Printing media is the most major role in driving the sport industry are the newspaper including, (1) specialized newspapers such as Siam Sports and Star Soccer because this is popular for interested people in sports together with professional athletes who are interested and buy to read and follow up the story as well as expressing opinions according to the sports (2) Populism newspapers such as Thairath and Daily News reveal that these are almost the first newspapers which are influent people in Thai society due to providing information and news which daily happened and easy reach closely to the people. Corresponding to Teerawanont (2014) who studied the mixing marketing which influenced consumer's decision to buy sports newspapers, it was showed that the high possibilities to buy a sports newspaper are channel and price. Moreover, the medium level of mixing marketing is news (news content) and marketing promotion.

2. Radio is an important role in driving the sport industry including, the analysis news and sports news, the sports advertising, live sports radio broadcasts and the sports games. It would help to drive the sport industry which corresponded to Hongthong (2011) who studied the management of the FM 99.0 MHz Active Radio station for sports, health and tourism showed that the current status of the FM 99.0 MHz Active Radioprograms under the management of MCOT Public Company Limited which have organizational structure in both public and private sectors for MCOT Public Company Limited.

3. Television is an important role in driving the sport industry including, live sports, the analysis news and sports news, the sports advertising and sports games TV show, corresponded with Jantararoj (2010) who studied the development of sports news of Royal Thai Army Television showed that the executives policy was not appropriate set for sports news but according to the news reporting policy which focuses on creating social benefits. That why the content is about honor a good people, encourage youth to play sports. And the most news important ranking is sports news both in foreign and domestic which is popular like football, tennis and golf.

4. Electronic media which has an important role in driving the sport industry including, internet, social media, email, mobile searching and mobile chat with corresponding to Boonphap (2013) who studied the role of new media to create social values and identities of Thai youth in Bangkok found that the modern digital media has an important role to create both negative and creative for the young. Moreover, modern media also has to be as a tool and space for youth to search survey and test their own identities and also has an indirect role in the socialization for the youth.

5. Movie media which has an important role in driving the sport industry including, film, documentary film, educational film, short film or short drama and the VDO music of telling the story with corresponding to Somphong (2012) who studied a sport leadership, case study from the movie named Coach Carter found that sports leaders can reflect a good coordination between coach and athletes, athletes and athletes, social and athletes. The results show that sports leadership is very important for all types of sports.

Suggestions

Suggestion for applying the results

Mass media, sport industry, and related businesses should cooperate to create the innovation or develop the method to use mass media to promote the sports revenue in terms of individuals, business and government because sports are the basic principle of human resource development which effect to the discipline, consciousness, harmony and sportsmanship and also included creating value and quality of life for the people. It also strengthens the country's economy by activities and services which related to the sport industry. So, mass media, sport industry and related businesses should create a network to promote and support the sport industry in all dimensions and integrated to create added value for the sport industry both production and related businesses, sports equipment, business for hotel, restaurant, food and beverage, competitive activities, insurance, travel and transportation including professional sports development institutions so that the sport industry can be created opportunities, created jobs and revenue for all levels. All mass media are printing media, radio, television, electronic media and film media. The role of the mass media and the media using consists of 6 aspects including, news, presenting opinions, entertainment, education/knowledge, public relations/advertising and social responsibility.

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Effect Of Yoga On Hormonal Changes And Quality Of Life In Menopausal Women

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Introduction:

Yoga originated in and was developed in the Indian subcontinent as a form of self-evolution, or development of the self as a fully-realized human being. Ultimately, through the practice of yoga, the impurity and imperfection of the human condition is removed to allow the true self to be revealed (Bouanchaud, 1997). From this philosophical and spiritual context, yoga in the West has developed into a physical recreational activity with expected benefits in strength, flexibility, balance and relaxation. Originally conceived as a means of addressing the entire self, it is increasingly also seen as a means of attaining holistic wellness, with physical benefits closely tied to mental and emotional benefits. In this context, revelation of the self for modern day practitioners can be interpreted as removal of sources of discomfort, disease, and physical ailment. This modern day interpretation remains consistent with Patanjali's aphorism 1.30: "The inner obstacles that disperse the mind are sickness, mental inertia, doubt, haste, apathy, intemperance, errors in judgement of oneself, lack of perseverance, and the inability to stay at a level once reached." (Bouanchaud, 1997). In this view, yoga is regarded as having the potential to help address malfunctions or imbalances that manifest as physical symptoms of disease, in particular those related to the stressful and often sedentary nature of western lifestyles.

Menopause and Hormones:

Menopausal symptoms may be experienced as early as 8 years prior to the last 10 menstrual cycle, and can range from negligible to severely problematic. These may include vasomotor symptoms, mood disturbance, increased stress reactivity, cognitive difficulty, headaches and sleep disturbances (Twiss et al., 2007). These symptoms are presumed to be directly related to hormonal changes occurring at perimenopause, but the mechanism by which symptoms are elicited is unclear. A relatively common pattern of hormone shifts during perimenopause can be observed, prominently characterized by a period of extreme fluctuation in estrogen levels followed by an overall decline that typically plateaus approximately 4-5 years postmenopause (Rannevik et al., 1995). Consequently, other reproductive hormone levels are altered due to changes in various feedback pathways, including declining levels of progesterone and elevated levels of follicle stimulating hormone (FSH) and luteinizing hormone (LH). Small decreases in circulating levels of testosterone, androstenedione and sex-hormone binding globulin have also been observed (Rannevik et al., 1995). In addition to effects on the hypothalamic-pituitary-gonadal axis, there is evidence that menopause is associated with increases in SNS activity as well as increased adrenocortical reactivity to stress (Lindheim et al., 1992; Vongpatanasin, 2009). For many years it was assumed the decline in estrogen levels combined with the elevated levels of FSH were responsible for vasomotor symptoms such as hot flashes and night sweats. A number of cross-sectional analyses have found that the prevalence and severity of hot flash symptoms is inversely related to circulating concentrations of estrogen and directly related to circulating FSH (Øverlie, Moen, Holte, & Finset, 2002; Randolph et al., 2005; Ratka, Miller, Brown, Jenschke, & Simpkins, 2009).

Benefits of yoga: clinical evidence:

Although the validity of claims about yoga and health has been questioned (Foreman, 2004) the number of studies focusing on the psychological, musculoskeletal, cardiovascular, and autonomic nervous system effects of yoga continues to grow. Although unlike Selvamurthy et al. (1998) no decline in blood pressure

was observed, the study participants were younger with no existing hypertension, likely resulting in a floor effect in which no further reduction in blood pressure could be found. The overall effects of inverted postures on localized blood pressure changes in regions of the body have yet to be studied in detail and are limited to those examining intraocular pressure during headstand (Baskaran et al., 2006). Information about local changes in blood pressure during the pose and effects on the baroreceptor reflex could lead to greater understanding about potential long term adaptations. The practice of pranayama has been linked to improvements in autonomic function and a shift from sympathetic to parasympathetic dominance, possibly mediated by stretch receptors producing inhibitory signals and hyperpolarization currents (Jerath, Edry, Barnes, & Jerath, 2006; Pal, Velkumary, & Madanmohan, 2004). This shift in response to breathing 20 pattern may be a factor in the claim that certain inversions “calm” the nervous system. While observations from these studies (Baskaran et al., 2006; Konar et al., 2000; Pal et al., 2004; Selvamurthy et al., 1998) suggest potential mechanisms by which benefits of yoga poses are elicited, the use of men as subjects limits generalisability of the findings to menopausal women, to whom the recommendation to practice yoga, particularly inversions is made. Recent research (Booth-LaForce et al., 2007; Chatta et al., 2008; Cohen et al., 2007; Mastrengeolo et al., 2007) has begun to address methodological problems seen in earlier studies, making use of female subjects, larger group sizes, and statistical analysis.

Materials and Methods:

Women ages 45-60 experiencing menopausal symptoms living in the ballari. Nearby ballari area to participate in the 10 week activity intervention study through posters, electronic notice boards, newspaper articles and newsletters. Women were also excluded if they had participated in a structured exercise program or smoked in the previous 6 months, or if they were unwilling to accept random assignment and confine their exercise activities to that of their assigned intervention group. Prior to beginning the intervention, resting heart rate and blood pressure were taken and to ensure that they met the safety criteria established by the Canadian Society for Exercise Physiology, excluding those with a resting heart rate of >100 beats per minute (bpm) and resting blood pressure of >144/95 mmHg. All subjects provided written informed consent. Participation was completely voluntary and participants were free to withdraw from the experiment at any time. The primary incentive was the opportunity to participate in yoga classes or group exercise sessions free of charge, with the additional incentive of a 50% discount on either the walking or yoga program at the ballari district completion of data collection. The experimental protocol was reviewed.

Data collection and experimental procedures:

Data collection and experimental procedures 35 a schematic of the experimental protocol used is seen in Participants attended two testing sessions one week prior to beginning and one week following the end of the intervention. During the first session, resting heart rate and blood pressure, height and weight were taken and resting blood samples were drawn. The Menopause Specific Quality of Life questionnaires was completed by participants on their first session and then again at weeks 4, 6, and during the post intervention blood sampling session.

Blood sampling and collection:

For all sampling sessions, participants refrained from strenuous exercise for 24 hrs, alcohol for 12 hrs, caffeine for 4 hrs and food for 3 hrs before the samples were drawn (Tremblay & Chu, 2000). Resting pre- and post-intervention blood samples were collected by lab technicians or registered nurses certified in phlebotomy. 5ml of blood each were drawn into plasma and serum vials. Samples were centrifuged and the serum or plasma stored at -80C till assayed.

Menopausal symptom assessment:

Participants completed the Menopause Specific Quality of Life (MENQOL) questionnaire (Lewis, Hilditch, & Wong, 2005) pre and post intervention as well as twice more within the 10 week period. The MENQOL was developed on women between the ages 45 and 65 to measure health-related quality of life symptoms 2-7 years following the last menstrual period. The questionnaire consists of 29 questions about menopause-related symptoms, each question 38 answered on an 8-point Likert scale to rate symptoms in four domains: vasomotor, physical, psychosocial and sexual. Domain-specific scores are calculated and a summary score is calculated as the mean of the four domain-specific scores. (Hilditch et al., 1996; Lewis et al., 2005). Domain internal consistency for the four domains ranged between 0.82 and 0.89 (Cronbach's alpha) and test-retest reliability over a 28 day interval ranged from 0.69 to 0.81 (intraclass correlation coefficient) (Lewis et al., 2005).

Data Analysis:

For statistical analysis, subjects from the fall and spring session were pooled and organized by their activity group, either walking or yoga. MENQOL questionnaire data was coded according to the Likert scale and entered by hand. Assay data was exported from Gen 5 to Microsoft Excel for tabulation and organization and statistical analysis performed using SPSS. Repeated measures ANOVA was performed to determine if there was change in MENQOL scores over the 10 week activity intervention and whether this change differed according to activity. Repeated measures ANOVA was also performed to determine if the 10 week intervention or activity type influenced concentrations of the hormones DHEA-S and FSH. All statistical tests were performed using SPSS 17.0 and statistical significance set at $p < 0.05$. Wherever the test for sphericity was significant ($p < 0.05$), degrees of freedom was adjusted using Geisser-Greenhouse correction.

Results:

A total of 25 women from the ballari area contacted ballari Physiology lab through telephone or e-mail. 64 were screened out due to unavailability during the class times, use of HRT, or not wishing to adhere to only one type of exercise, resulting in initial recruitment of 10 women into the walking group and 10 into the yoga group. One woman dropped out of the walking group after the first test session due to not wishing to be restricted to the assigned activity, and two dropped out after the first exercise session for unknown reasons, leaving a total of eight participants. The remaining eight participants completed the 10 week walking program, Of the ten women recruited into the yoga group, all completed the yoga program. Ten completed fitness assessments and provided post-intervention blood samples, and nine returned Menqol questionnaires.

Subject data is shown in Table 1. There were no significant differences between the two groups in age, weight, or BMI at the outset of the intervention.

Table 1: Mean (S.D.) age, weight and BMI of subjects pre- and post- yoga and walking interventions.

| Group | N | Age (yrs) | Mass (kg) | | BMI (kg/m ²) | |
|-------|----|-----------|------------|-------------|--------------------------|------------|
| | | | pre | post | pre | post |
| Walk | 9 | 52.6(4.1) | 72.4(16.6) | 73.0 (17.4) | 27.1(6.4) | 27.3 (6.8) |
| Yoga | 10 | 51.9(4.3) | 75.0(15.3) | 76.3(15.7) | 27.6(5.9) | 28.1 (6.0) |

Table.2 Mean (S.D.) serum concentrations of DHEA-S and FSH of subjects pre- and post- yoga and walking interventions.

| Group | n | DHEA-S ($\mu\text{g/ml}$ blood) | | FSH (IU/L blood) | |
|-------|----|----------------------------------|---------------|------------------|----------------|
| | | pre | post | pre | post |
| Walk | 9 | 1.433 (0.585) | 1.565 (0.595) | 60.74 (32.80) | 64 (34.80) * |
| Yoga | 10 | 1.145 (0.449) | 1.274 (0.590) | 55.11 (33.88) | 52.82 (37.44)* |

DHEA-S: dehydroepiandrosterone sulfate, FSH: follicle stimulating hormone

* $p = 0.066$ for time, $p = 0.074$ for time by group

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Effectiveness Of Zumba Fitness To The Fitness Enthusiasts In Kalibo, Aklan, Philippines

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Abstract

This study determined the level of Effectiveness of Zumba Fitness to the Fitness Enthusiasts in Kalibo, Aklan, Philippines. The findings of the study revealed that the fitness enthusiasts were between 38-40 years old, most were females and majority were married. The subjects who were overweight in the pre-test were found to have decreased their weight in the posttest. Those who had normal body mass index increased in the pretest up to last posttest. The number of obese fitness enthusiasts remained the same in the posttest. The biggest number of participants excelled in sits up. Majority performed poorly in long jump. For the sprint test, the subjects gradually improved. Majority had average results in agility. There were significant differences between the pretest and posttest results in the sit up, sprint and agility performance of the fitness enthusiasts after they underwent the zumba fitness. However, no significant difference was found in the long jump performance. The waist circumference of the participants was significantly different before and after the zumba fitness but no significant difference was noted in their weight. Among the hindrances that prevented the fitness enthusiasts from attaining their goals of becoming physically fit and lose weight was uncontrolled diet or eating habit. Zumba sessions were done only three times a week. Attendance was also an issue due to pressure from work, family, sickness and interest or motivation. The participants found zumba fun and a stress reliever. There was a party-like feeling. Their body became light and active and energized. Zumba is an effective means of reducing the waist circumference but has not been found to significantly reduce weight. There are factors that hinder the fitness enthusiasts from attaining the desired weight loss. Along with exercise is a controlled diet. Zumba sessions conducted three times a week for three months are not enough to affect a significant weight loss. However, zumba dance exercise is a fun way of losing weight, gaining endurance and getting healthy. It effectively helps improve the physical, emotional and social well-being of the participants. The proposed program design for zumba fitness program should be implemented in order to enhance level of physical fitness of fitness enthusiasts. Key-words: Fitness, Zumba, Physical Fitness, Health, Dance etc.

Introduction

Physical fitness and health are integral part of human life. Fitness and wellness are correlated with each other. In fitness, body proportion and composition are important parameters which have roles relevant to health related fitness and skill related fitness. Maintenance of physical fitness is needed by human society. In this age of stress and tension, low level of fitness leads towards the exposure of degenerative and psychosomatic disorders including other sufferings.

People in today's world do not realize the importance of physical fitness. In fact many have become sedentary and their lifestyles become a serious threat to their health. Men have become less physically fit as civilization progresses. Due to modern technology, men are engrossed in activities such as watching television, playing computers, tablets and the like.

One way of preventing these health issues is engaging in Zumba Fitness. The Zumba Fitness program is a Latin-inspired, dance-fitness class that incorporates Latin and international music and dance movements, creating a dynamic, exciting, exhilarating, and effective fitness program. A Zumba Fitness class, known as a Zumba Fitness-Party, combines fast and slow rhythms that tone and sculpt the body using an aerobic or fitness approach to achieve a unique blended balance of cardio and muscle-toning benefits (Zumba Fitness, 2013).

It is usually performed to music and may be practiced in a group setting led by a licensed zumba instructor. Practitioners perform various routines comprising a number of different dance-like exercise. It can also be done solo and without musical accompaniment. Its goal is to prevent illness and promote physical fitness (Zumba Fitness LLC, Instructor Training Manual, 2013).

Zumba promotes an efficient way of weight loss but this activity does not seem to catch fire among the people in the Philippines, province of Aklan, specifically in Kalibo. This prompted the researcher to conduct the study to determine the Effectiveness of Zumba Fitness to Fitness Enthusiasts in Kalibo, Aklan, Philippines in order to provide an enriched wellness program to achieve optimum physical fitness. The researcher, as a Physical Education Instructor for ten years and a licensed Zumba Instructor and wellness coach of the fitness program of the Municipality of Kalibo, was challenged to conduct this study.

Research Methodology

This study utilized the descriptive-correlational and quasi experimental designs using quantitative and qualitative approaches.

The study was conducted in Pastrana Park, Kalibo, Aklan, Philippines. It is located in the heart of Kalibo and situated in the commercial hub. Pastrana Park is where all major arterial streets in Kalibo intersect. It is where most social and community activities are being held. Fronting Pastrana Park is Saint John the Baptist Cathedral.

The respondents of the study were the fitness enthusiasts who participated in the Wellness and Fitness Program of the Municipality of Kalibo. These Zumba enthusiasts were mostly women, housewives, teachers, Local Government Unit employees, businessmen, policemen, with some teenagers and kids. The ages of the fitness enthusiasts ranged from 11 years old to 65 years old. Out of 57 participants 30 were randomly selected to participate in the study. They were the ones who submitted their medical/family history and waiver of liability certifying that they were fit to participate in the zumba fitness.

A researcher-made questionnaire was used to gather the demographic profile. A medical history and family history questionnaire with the validation of a cardio doctor was used. A lifestyle evaluation was also given to assess the participants' way of life and in evaluating their physical fitness level, the Physical Fitness Test (PFT) was used. This was a standardized test in testing the level of fitness. A pre-test and post-test were done to determine the health-related fitness and skill-related fitness and weight and waist circumference of the participants. It is a test to find out the level of physical fitness of the participants. (1) Standing Long Jump which measures leg power and strength, (2) Sit-ups, which measures abdominal strength and endurance, (3) Speed or Sprint, which measures speed and cardio-vascular endurance and (4) Illinois Agility Test which measures agility.

After the pre-test of the Physical Fitness Test, the participants underwent sessions in Zumba Fitness classes conducted by the researcher, which was held three times a week for a minimum duration of three months comprising of 36 sessions. Each class was typically a one hour class comprising of 10 minutes Warm Up, 45 minutes of Zumba Fitness class and 5-7 minutes Cool Down. After each month, a post-Physical Fitness Test was conducted.

The researcher gathered the data after the approval of the Dean of the Graduate School and Adviser. Participants were required to submit waiver of liability or consent. A letter of approval was secured from the Municipal Mayor of Kalibo to conduct the research to the fitness enthusiasts in the Wellness and Fitness Program of the Municipality. Then, the researcher administered the questionnaire to find out the participants' demographic profile, medical/family history, lifestyle evaluation, heart rate, measurements for the waist circumference and weight. The researcher formally administered the Physical Fitness Test prior to the conduct of the zumba fitness activity. For three months, a zumba fitness workout was done, then at the end of each month a physical fitness test was given to the participants.

After the research instruments had been administered, questionnaires were retrieved, tallied, checked, and tabulated and subjected to appropriate statistical analysis. Appropriate statistical tests were employed after determining the behavior of the data gathered. Mean, simple percentage and t-tests were used. For the relationship, Pearson r, Cramer's v, Gamma were used. Statistical Significance. The level of significance was set at $p=0.05$.

Results And Discussion

The findings of the study were summarized and arranged as follows: the demographic profile of the fitness enthusiasts showed that they had a mean age of 38.63 years old; most were females, and majority were married. More than one-third was between 125-149 lbs., with a mean weight of 141.29 lbs. Majority were between 5'0"-5'12" tall. Their lifestyle shows that most of them do exercise 3-4 times a week and enjoyed dance as their form of exercise. Majority of them were government employees who were involved in physical exercise. Dance exercise was the most chosen exercise or hobby that they do in their spare time. Half of the fitness enthusiasts in the pre-test were overweight but decreased to 36.7% in the 3rd posttest. Those who had normal body mass index increased from 36.7% in the pretest to 50% in the 3rd posttest. The biggest number of participants excelled in sit up in the pretest and increased to 60% in the 3rd posttest. Majority performed poorly in the long jump pretest and remained the same in the 3rd posttest. The sprint test revealed 100% who performed poorly in the pretest but this decreased to 23.3% in the 3rd posttest. However, from 0% in the pretest, fair runners increased to 56.7% in the posttest. Majority had average agility in the posttest from an initial 0% in the pretest. Majority in the 3rd posttest were between 125-149.9 lbs. which marked an increase from the initial 43.3% in the pretest.

There were significant differences between the pretest and posttest results in the sit up, sprint and agility performance of the fitness enthusiasts after they underwent the zumba fitness exercise. However, no significant difference was found in the long jump performance among the fitness enthusiasts after they were subjected to a pretest and posttest. Waist circumference of the participants was significantly different before and after the zumba fitness exercise but no significant difference was found in their weight.

Among the hindrances that prevented the fitness enthusiasts from attaining their goals of becoming physically fit and lose weight were uncontrolled diet or eating habit. Zumba sessions were done only three times a week. Attendance was also an issue due to pressure from work, family, sickness and interest or motivation.

The participants found zumba fun and a stress reliever. There was a party-like feeling. Their body became light and active and energized. It has also improved their health. From zumba, they also learned the art of dancing, good coordination, self-confidence, gained new friends and connections with the community.

Conclusions

Based on the findings, the following conclusions were drawn:

More females are interested in attending zumba fitness dance exercise than males most likely because dance exercise is seen as more fitting for women than for men. Married women are more interested in attending zumba dance exercise classes most likely because they have put on weight after marriage and childbirth, hence, desired to get back in shape. Their medical and family history evaluation qualified them to become participants of the study. An almost equal number of participants have average and above average heart rates to those who have below average and poor heart rates.

Zumba fitness dance exercise helps reduce weight of the participants. They performed better in the sit up, sprint and agility tests after undergoing the zumba fitness classes.

The single participants performed better in the sit up test compared to the married ones most likely because they are younger and are more physically active. Weight is highly dependent on height and body mass index. Thus, participants who are taller and with higher body mass index would also be heavier. This also means that weight, height and body mass index are contributory factors to the weight circumference.

Attendance to zumba fitness dance sessions help in reducing weight. The zumba exercise effectively improves the sit up, sprint and agility of the fitness enthusiasts but not their long jump performance. Thus, zumba helps in the development of strength, power, endurance, speed agility and most especially in cardiovascular or cardio respiratory which are the components of good level of fitness.

Zumba is an effective means of reducing the waist circumference but has not been found to significantly reduce weight. There are factors that hinder the fitness enthusiasts from attaining the desired weight loss. Along with exercise is a controlled diet. Zumba sessions conducted three times a week for three months are not enough to effect a significant weight loss. Absences also could have affected the participants' goal of attaining the desired weight. However, zumba dance exercise is a fun way of losing weight, gaining endurance and getting healthy. It effectively helps improve the physical, emotional and social well-being of the participants.

Results demonstrate that Zumba fitness can be an effective way to obtain beneficial health related and skill-related fitness effects. Promoting physical activity through increased awareness of Zumba fitness which is a fun way to exercise in groups can go along in promoting healthy lifestyle.

Recommendations

The following are recommended based on the conclusions. Zumba fitness dance enthusiasts should spend time to convince their male relatives, neighbors and friends, as well as people of all ages and civil status, to attend zumba dance sessions due to the physical and health benefits it brings to participants. Zumba is recommended even for athletes or athletic people since it improves the components of fitness in the development of strength, power, endurance, speed agility and most especially in cardiovascular or cardio respiratory. In order for the zumba fitness dance exercise to be successful in attaining weight loss, participants need to have control over their eating habits. A three month session three times a week are not enough to effect a significant weight loss, hence, further study may be conducted by future researchers increasing the frequency of the sessions and time duration. Longer sessions would probably yield quite different results. Incentives may be provided to participants who are diligent in attending the dance sessions. Therefore, it should be recommended as a means of increasing physical activity especially in the sedentary population or in individuals who do not like sports or structured exercise.

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Effect Of Physical Exercise On Female Reproductive Hormones

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Introduction :

A hormone is a class of regulatory biochemical that is produced in all multi cellular organism by gland and transports by the circulatory system to a distant target organ to coordinate its physiology and behavior. Hormone serves as a major form of communication between different organ and tissues. Hormones regulate variety of physiological and behavioral activity includes digestion, metabolism, respiration, tissue function, sensory preparation, sleep, excretion, lactation, stress, growth and development movement, reproduction, and mood. Generally, only a small amount of hormone is required to alter cell metabolism. Regular and healthy reproductive cycle is a complex process comprising the coordinated interaction of neurotransmitter systems, hypothalamic releasing factors, and anterior pituitary gland hormones.

BENEFITS OF PHYSICAL ACTIVITY FOR GIRLS

Research on the biophysical impact of exercise on children and adolescents is quite extensive although, as previously mentioned; investigations focusing exclusively on girls are limited. The following information addresses those benefits specifically relevant to girls. We focus in particular on benefits related to power (i.e., aerobic power or endurance and anaerobic power), strength, weight management and health-related issues such as immune function effects and reproductive maturation.

PHYSICAL EFFECTS OF THE FEMALE SEX HORMONES:

The female sex steroid hormones are all derivatives of cholesterol. Within the estrogen group of 18-carbon steroids, *17 β estradiol* is the major form, and *estrone* and *estriol* are less potent. In women, they are secreted primarily by the ovaries, and to a lesser extent by the adrenals. As discussed, synthetic forms include ethinyl estradiol and mestranol. The other major female hormones are the *progestins*: endogenous *progesterone* and *first* -, *second* -, *third* -, and now *fourth* - generation synthetic progestins in OCs. The various female sex steroids (endogenous and exogenous) exert a myriad of diverse and complex effects on multiple physiologic parameters, with the potential to influence athletic performance. Considerations for exercise performance in women therefore differ significantly from men.

Osteoporosis and General Bone Health The decrease in bone mass that accompanies the aging process and the loss of estrogen levels after menopause often results in osteoporosis. The risk factors associated with osteoporosis include age, race, height-to-weight ratio and menopause in women. The three most important factors that contribute to healthy bones appear to be hormonal, nutritional and mechanical (Blair et al., 1996). Because there is no cure for this condition once it occurs, efforts must focus on prevention. In young childhood and adolescence, the development of peak bone mass is directly affected by regular physical activity combined with adequate calcium and vitamin D intake. Greater bone mass develops due to weight bearing, which is most often experienced during physical activity, and helps to protect against osteoporosis later in life when bone loss occurs. In fact, it is essential to place demands on bone for it to remain healthy. For example, a young adult at bed-rest for one week will lose about one percent of spinal density, which could take up to four months to regain (Kroemer & Toft, 1983). In contrast, it has been found that young tennis players have higher bone density in their preferred (racket holding arm) than in their other

arm, thus supporting the positive role of placing demands on bone (Jacobson, Beaver, Grubb, Taft, & Talmage, In order for bones to grow properly, it is important for children, particularly adolescents, to participate in regular (preferably daily) physical activity (Kimm & Kwiterovich, 1995). The growth and development of children should also be monitored in terms of optimal weight and the balance of strength and flexibility. Because weight is linked to spinal bone density, it is critical to monitor underweight children carefully.

Conclusions And Recommendations:

Conclusion: It may be concluded that exercise may change the level of secretion of various female hormones and if it is necessary to control the secretion of female hormone we may use exercise as an important tool.

Physical activity, which includes the opportunity to develop an active lifestyle, to be physically fit and to acquire fundamental motor skills, can positively impact the overall health of girls in several ways. For example, increased fitness levels can contribute to better posture, the reduction of back pain and the development of adequate strength and flexibility, qualities which allow girls to participate fully in their daily activities, both vocational and recreational. The information presented below represents a summary of the contributions of sport and physical activity to the health and fitness of girls, as well as some recommendations for ensuring that all girls benefit from such involvement.

1. Girls' participation in physical activity and sport positively impacts their aerobic power by increasing VO_2 max stroke volume, O_2 uptake and ventilatory capacity. Additionally, girls can accrue strength gains through increased muscle activation, improve flexibility due to increased range of motion and perhaps enhance immune functioning (Rowland, 1990).
2. Girls' early involvement in physical activity and sport can reduce the likelihood of developing a number of deleterious health-related conditions. For example, being physically fit positively influences blood lipid profiles which in turn minimize the development of atherosclerosis. In addition, the increased caloric expenditure of active girls decreases their risk of becoming obese (Rowland, 1990).
3. There is a growing public health consensus (McGinnis, 1992) that "diet and physical exercise patterns have a synergistic effect in reducing mortality" (Blair et al., 1996, However, professionals must remain cognizant of the potential health concerns associated with high levels of physical activity and overtraining, as well as some sport participation, namely, athletic injuries and the development of amenorrhea, which may be linked to osteoporosis in post-menopausal women. We must establish and maintain health- and fitness-related programs to reduce the occurrence of such deleterious conditions.
4. Given that the biophysical benefits of exercise for girls dramatically outweigh the disadvantages, mechanisms providing opportunities for enhanced physical activity must be developed and supported. Independently organized clubs and sports, recreational programs and school-based physical education and sport programs are ideal ways to healthy society.

Identify the role of physical activity in health-related problems for girls. A significant childhood health problem is obesity. The combination of increased physical activity and decreased caloric intake is the most effective technique for weight control. In addition, the management of several childhood diseases is enhanced by regular exercise, but physical activity and exercise may be more difficult due to other life changes that often accompany these conditions (e.g., diabetes and cerebral palsy). There is need for increased research focusing on the diverse ways in which physical activity can be used in the management of a variety of health problems of children and teenagers.

Determine the links between early childhood behaviors and risk factors for serious disease in adults. It appears that many of the chronic diseases of adulthood have their "biological and ecological roots in childhood" (Kimm & Kwiterovich, 1995, p. 269). Research is needed to identify prudent preventive strategies which can be encouraged for all children, particularly those at risk for chronic diseases.

Delineate the factors that impact the association between exercise and

Reproductive functioning. The delay in menarche, which sometimes accompanies strenuous exercise and training, may have both positive and negative consequences. More research is needed on the relationship between the type and level of exercise, and various factors related to reproductive functioning such as the onset of menarche, risk of estrogen-linked cancers, bone density and osteoporosis, and amenorrhea

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Varicose Veins in Sportsmen; Role in Peak Performance

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Abstract:

Background: Around 15 to 20% of population in India is suffering from vein disease. Venous conditions have a very low public health priority. Sports person often suffer from simple to complicated varicose veins. The intension of this exploratory study of sports persons from different disciplines is to understand the effect of varicosity in their sports performance. Methods: District and state level sports persons were examined during their visits to clinic for pain in lower limbs and occasional pedal edema. Thirty two players of both sexes from different sports disciplines (22 males & 10 males) were examined. They were from Athletics, Weight lifting, and Football. Sports persons with varicose veins were recorded as C1 and C2 in Hyderabad Spine Clinics over a period of 10 months. Their awareness over the issue and treatment were noted. Results: About 48 % of the subjects irrespective of sports discipline, complained of pain and discomfort during training. None of them were aware of preventive care for varicosity such as elevation, wearing stockings and medication during complications.

Conclusion: Varicose veins are not uncommon in players and can interfere with peak performance. Awareness among players and coaches can prevent drop in performance. Varicosity is known to get complicated over long period. There is a need for detailed research and awareness among sports fraternity. Key words: Varicose veins, Sports persons, Pedal edema, Sports performance

Introduction:

Varicose veins occurs when veins become enlarged, swollen and diluted with blood tortuous, widened veins in the legs and are often easily visible. Their valves are usually incompetent so that reflux of blood occurs, and the resulting venous hypertension can cause symptoms [1]. Varicose veins are seen not only in elderly but can cause increased pressure in the leg veins leading to symptoms that may impair the athletes' performance. After running one to two km the man had to stop running due to increasing numbness in the lower leg, aching muscles in the calf and finally pain [2]. Veins dilate during exercise increasing the volume of venous blood pooling in the legs leading to decreased venous return to the heart and further decreasing athletic performance in athletes with varicose veins. Around 15 to 20% of population in India is suffering from vein disease. The main factors in the etiology of varicose vein are venous dilation and valvular insufficiency that are started by unknown factors [3]

The following are the symptoms of athletes with varicose veins.

Pain in the legs with activity, Heaviness, Swelling, Fatigue, Itching, Blue bulging veins

Certain sports are more prone to develop varicose veins than the others. Sports such as Weightlifting, athletics place more stress on the veins of the legs. These sportsmen often suffer from simple to complicated varicose veins. In this study, players with C1 and C2 varicose veins were examined. The intension of this exploratory study of sports persons from different disciplines is to understand the effect of varicosity in their sports performance.

Methods:

Players were examined in Hyderabad Spine Clinics. District and state level sports persons were examined during their visits to the clinic for pain in lower limbs and occasional pedal edema. Thirty two players of both sexes from these three different sports disciplines (22 males & 10 females) were examined. They were athletics, (16 runners: 9 males and 7 females), football (8 males), and weightlifting (8 lifters: 5 males and 3 females). Sports persons with varicose veins were recorded as C1 and C2 in Hyderabad Spine Clinics over a period of 10 months.

Table 1 - CEAP classification of patients.

| CEAP Class | Male | Female |
|------------|------|--------|
| C0 | 0 | 0 |
| C1 | 10 | 3 |
| C2 | 12 | 7 |

C1 indicates that the players have visible bulging veins called spider veins but without any symptoms. C2 indicates varicose veins with symptoms such as pain, swelling and heaviness in the legs. 12 males and 7 females noticed pain and heaviness in their legs during or after their respective sports activities. None of the subjects were aware of the treatment options for the varicose veins. Nor they ever used compression stockings to reduce the symptoms. Their awareness over the issue and treatment were noted.

Results:

Current study clearly demonstrated that many sports personnel suffer from varicosity. About 48 % of the total subjects irrespective of sports discipline complained of pain and discomfort during training. Many females (70%) were affected by problems related to varicose veins (Class C2). Whereas 55% of males were affected by varicosity (Class C2). These players never followed any preventive measures for varicosity and complications.

Discussion:

Many people mistakenly believe that varicose veins are seen only in inactive elderly population. But in reality any physical activity that require legs to support heavier weights such as weight lifting and activities that are repetitive in nature such as running put a lot of stress in the legs leading to development of varicose veins. Among the risk factors most closely associated with chronic venous insufficiency (CVI) was age and family history of varicose veins [4]. Javien's study showed that varicose veins were more common in women, but female sex was not found to be a strong risk factor. In this study females were most affected when compared to males. All of the affected subjects had severe pain and heaviness in their legs after their respective sport activities leading to hindrance of their performances. If the subjects wore compression stockings while performing, the blood would be pumped back towards the heart quicker than normal rate thus limiting the pooling of fluid in the limbs. Compression socks increase stamina by improving performance and recovery. Elevation of the limbs helps in carrying blood towards the heart with the help of gravity. Sadly none of them were aware of preventive care for varicosity such as elevation, wearing stockings and medication during complications.

Conclusion:

Varicose veins are not uncommon in players and can interfere with peak performance. Awareness among players and coaches can prevent drop in performance. Varicosity is known to get complicated over long period. There is a need for detailed research and awareness among sports fraternity.

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Psycho-Social Predictors Of Sports Persons

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Abstract:

To determine the significance difference of Psycho-Social Predictors of Anxiety and Emotional Intelligence in Sports Persons. A total of 200 subjects (100 subjects from urban, while another 100 subjects were from rural), who were selected randomly from the various games available across both urban and rural areas school students of Jodhpur (Rajasthan) The age of the players ranged between 15 to 18 years. Insignificant difference was found between the means scores of male and female in relation to five alternatives of anxiety of urban and rural locality, as the tabulated t. value found to be less than the required value. Insignificant difference was found between the means scores of male and female in relation to Intra-personal awareness (knowing about one's own emotions, knowing about other's emotions, managing one's own emotions) and total Emotional Intelligence Inventory of urban and rural locality, as the tabulated t. value found to be less than the required value. Key words: Psycho-Social, Anxiety, emotional intelligence

Introduction:

The concept of emotional intelligence is multifaceted in nature, including individual skills and insights, regarding inter- and intrapersonal factors which influence the competency profile of a person (Mayer, Salovey and Caruso, 2004). It implies that humans are both rational and emotional beings. The term 'emotional intelligence', then implies something having to do with the intersection of emotion and cognition. Hence, adaptation and coping abilities in life are dependent on the integrative functioning of both rational and emotional capacities (Salovey, Bedell, Detweiler, and Mayer, 2000). It involved the ability to reason using emotions and of emotions to enhance reason.

After reviewing the history of emotional intelligence it can be stated that the theoretical idea behind emotional intelligence is not totally new in the field of psychology. Though emotional intelligence is one of the recent development in the area of intelligence the existing models of emotional intelligence are somewhat overlapping with many other constructs such as social intelligence, intra and interpersonal intelligences, and practical intelligence. One of the main bases of individual difference is the general intelligence. Some investigators have reported intellectual differences in test-anxiety as well.

Selection Of The Subjects:

For the purpose of this study it was decided to go in for a sample from the population of the school students were randomly selected from the various games available across both urban and rural areas of Jodhpur (Rajasthan). Therefore, the sample of the present study is comprised of students of different schools located in Jodhpur. The age of the players ranged between 15 to 18 years. These schools were located in rural and urban areas of Jodhpur and are affiliated to Rajasthan Board of Secondary Education and Central Board of Secondary Education. Regarding the selection of urban and rural subjects, one thing was most efficiently kept in mind that those subjects were considered as urban and rural who were engaged in physical activities. Therefore the subjects were equally selected from both the urban and rural areas for the purpose of data collection.

Criterion Measure

Emotional Intelligence and Anxiety among the subjects were assessed by using standard questionnaires responded by the subjects.

| Variable | Name of Questionnaire | Author |
|------------------------|----------------------------------------|------------------|
| Emotional Intelligence | Emotional Intelligence Inventory (EII) | Mangal |
| Anxiety | Test Anxiety Scale (TAS) | Dr. V. P. Sharma |

Findings

The results pertaining to mean, standard deviation and 't' test have been presented in table No.1 to 5. In the first part 'A' descriptive statistics was provided in relation to each of urban and rural locality. Secondly, comparison of male and female was provided living in urban and rural locality.

In the last part 'B' Path Analysis using AMOS software was provided to predict the each dimension of Emotional intelligence using independent variables.

Table-1.1: Descriptive Statistics of subjects in relation to FIRST_ALTERNATIVES_ANXIETY of Urban and Rural locality (n=100)

| | Range | Minimum | Maximum | Sum | Mean | Std Dev |
|-------|-------|---------|---------|--------|------|---------|
| Urban | 15 | 1 | 16 | 633.00 | 6.33 | 2.89 |
| Rural | 13 | 1 | 14 | 499.00 | 4.99 | 2.11 |

The above table reveals the range of Urban and Rural (15;13), Minimum (1, 1), Maximum(16,14), Sum(633,499.00), Mean(6.33,4.99) and Standard deviation(2.89,2.11)

Table-1.2: Comparison of Male and Female in relation to FIRST_ALTERNATIVES_ANXIETY of Urban locality (n=50)

| | Mean | Std | 't' | df | sig | Mean Difference |
|--------|------|------|-------|----|------|-----------------|
| Male | 6.36 | 3.06 | -0.10 | 98 | 0.92 | -0.06 |
| Female | 6.30 | 2.75 | | | | |

In Urban Locality, the table No.29.2 shows that the mean and standard deviation of Male (6.36; 3.06) & Female (6.30; 2.75). The difference mean in male and female was -0.06. This shows that no significant difference was found in case of male and female in relation to FIRST_ALTERNATIVES_ANXIETY (t=-0.10, df=98, p=0.92)

Table-1.3: Comparison of Male and Female in relation to FIRST_ALTERNATIVES_ANXIETY of Rural locality (n=50)

| | Mean | Std | 't' | df | sig | Mean difference |
|--------|------|------|-------|----|------|-----------------|
| Male | 5.42 | 2.43 | -2.07 | 98 | 0.04 | -0.86 |
| Female | 4.56 | 1.64 | | | | |

In Rural Locality, the table No. 29 shows that the mean and standard deviation of Male (5.42; 2.43) & Female (4.56; 1.64). The difference mean in male and female was -0.86. This shows that significant difference was found in case of male and female in relation to FIRST_ALTERNATIVES_ANXIETY (t=-2.07, df=98, p=0.04)

Table-2.1: Descriptive Statistics of subjects in relation to SECOND_ALTERNATIVES_ANXIETY of Urban and Rural locality (n=100)

| | Range | Minimum | Maximum | Sum | Mean | Std Dev |
|-------|-------|---------|---------|--------|------|---------|
| Urban | 13 | 1 | 14 | 660.00 | 6.60 | 2.36 |
| Rural | 10 | 1 | 11 | 599.00 | 5.99 | 2.09 |

The above table reveals the range of Urban and Rural (13;10), Minimum (1, 1), Maximum(14,11), Sum(660.00000000000023,599.00), Mean(6.60,5.99) and Standard deviation(2.36,2.09)

Table-2.2: Comparison of Male and Female in relation to SECOND_ALTERNATIVES_ANXIETY of Urban locality (n=50)

| | Mean | Std | 't' | df | sig | Mean Difference |
|--------|------|------|-------|----|------|-----------------|
| Male | 7.10 | 2.18 | -2.16 | 98 | 0.03 | -1.00 |
| Female | 6.10 | 2.44 | | | | |

In Urban Locality, the table No.30.2 shows that the mean and standard deviation of Male (7.10; 2.18) & Female (6.10; 2.44). The difference mean in male and female was -1.00. This shows that significant difference was found in case of male and female in relation to SECOND_ALTERNATIVES_ANXIETY (t=-2.16, df=98, p=0.03)

Table-2.3: Comparison of Male and Female in relation to SECOND_ALTERNATIVES_ANXIETY of Rural locality (n=50)

| | Mean | Std | 't' | df | sig | Mean difference |
|--------|------|------|-------|----|------|-----------------|
| Male | 6.14 | 1.85 | -0.72 | 98 | 0.48 | -0.30 |
| Female | 5.84 | 2.32 | | | | |

In Rural Locality, the table No.30.3 shows that the mean and standard deviation of Male (6.14; 1.85) & Female (5.84; 2.32). The difference mean in male and female was -0.30. This shows that no significant difference was found in case of male and female in relation to SECOND_ALTERNATIVES_ANXIETY (t=-0.72, df=98, p=0.48)

Table-3.1: Descriptive Statistics of subjects in relation to THIRD_ALTERNATIVES_ANXEITY of Urban and Rural locality (n=100)

| | Range | Minimum | Maximum | Sum | Mean | Std Dev |
|-------|-------|---------|---------|--------|------|---------|
| Urban | 9 | 2 | 11 | 616.00 | 6.16 | 1.97 |
| Rural | 11 | 1 | 12 | 614.00 | 6.14 | 2.15 |

The above table reveals the range of Urban and Rural (9;11), Minimum (2, 1), Maximum(11,12), Sum(616.00000000000023,614.00), Mean(6.16,6.14) and Standard deviation(1.97,2.15)

Table-3.2: Comparison of Male and Female in relation to THIRD_ALTERNATIVES_ANXEITY of Urban locality (n=50)

| | Mean | Std | 't' | df | sig | Mean Difference |
|--------|------|------|------|----|------|-----------------|
| Male | 5.96 | 2.13 | 1.01 | 98 | 0.31 | 0.40 |
| Female | 6.36 | 1.80 | | | | |

In Urban Locality, the table No.31.2 shows that the mean and standard deviation of Male (5.96; 2.13) & Female (6.36; 1.80). The difference mean in male and female was 0.40. This shows that no significant difference was found in case of male and female in relation to THIRD_ALTERNATIVES_ANXEITY (t=1.01, df=98, p=0.31)

Table-3.3: Comparison of Male and Female in relation to THIRD_ALTERNATIVES_ANXEITY of Rural locality (n=50)

| | Mean | Std | 't' | df | sig | Mean difference |
|--------|------|------|------|----|------|-----------------|
| Male | 5.98 | 2.26 | 0.74 | 98 | 0.46 | 0.32 |
| Female | 6.30 | 2.03 | | | | |

In Rural Locality, the table No. 31.3 shows that the mean and standard deviation of Male (5.98; 2.26) & Female (6.30; 2.03). The difference mean in male and female was 0.32. This shows that no significant difference was found in case of male and female in relation to THIRD_ALTERNATIVES_ANXEITY (t=0.74, df=98, p=0.46)

Table-4.1: Descriptive Statistics of subjects in relation to FORTH_ALTERNATIVES_ANXEITY of Urban and Rural locality (n=100)

| | Range | Minimum | Maximum | Sum | Mean | Std Dev |
|-------|-------|---------|---------|--------|------|---------|
| Urban | 9 | 0 | 9 | 327.00 | 3.27 | 2.12 |
| Rural | 15 | 1 | 16 | 390.00 | 3.90 | 2.13 |

The above table reveals the range of Urban and Rural (9;15), Minimum (0, 1), Maximum(9,16), Sum(326.99999999999989,390.00), Mean(3.27,3.90) and Standard deviation(2.12,2.13)

Table-4.2: Comparison of Male and Female in relation to FORTH_ALTERNATIVES_ANXEITY of Urban locality (n=50)

| | Mean | Std | 't' | df | sig | Mean Difference |
|--------|------|------|------|----|------|-----------------|
| Male | 3.02 | 2.03 | 1.18 | 98 | 0.24 | 0.50 |
| Female | 3.52 | 2.20 | | | | |

In Urban Locality, the table No.32.2 shows that the mean and standard deviation of Male (3.02; 2.03) & Female (3.52; 2.20). The difference mean in male and female was 0.50. This shows that no significant difference was found in case of male and female in relation to FORTH_ALTERNATIVES_ANXEITY (t=1.18, df=98, p=0.24)

Table-4.3: Comparison of Male and Female in relation to FORTH_ALTERNATIVES_ANXEITY of Rural locality (n=50)

| | Mean | Std | 't' | df | sig | Mean difference |
|--------|------|------|-------|----|------|-----------------|
| Male | 4.00 | 2.42 | -0.47 | 98 | 0.64 | -0.20 |
| Female | 3.80 | 1.83 | | | | |

In Rural Locality, the table No.32.3 shows that the mean and standard deviation of Male (4.00; 2.42) & Female (3.80; 1.83). The difference mean in male and female was -0.20. This shows that no significant difference was found in case of male and female in relation to FORTH_ALTERNATIVES_ANXEITY (t=-0.47, df=98, p=0.64)

Table-5.1: Descriptive Statistics of subjects in relation to FIFTH_ALTERNATIVES_ANXEITY of Urban and Rural locality (n=100)

| | Range | Minimum | Maximum | Sum | Mean | Std Dev |
|-------|-------|---------|---------|--------|------|---------|
| Urban | 8 | 0 | 8 | 268.00 | 2.68 | 1.92 |
| Rural | 9 | 0 | 9 | 396.00 | 3.96 | 1.81 |

The above table reveals the range of Urban and Rural (8;9), Minimum (0, 0), Maximum(8,9), Sum(268.00000000000006,396.00), Mean(2.68,3.96) and Standard deviation(1.92,1.81)

Table-5.2: Comparison of Male and Female in relation to FIFTH_ALTERNATIVES_ANXEITY of Urban locality (n=50)

| | Mean | Std | 't' | df | sig | Mean Difference |
|--------|------|------|------|----|------|-----------------|
| Male | 2.64 | 1.83 | 0.21 | 98 | 0.84 | 0.08 |
| Female | 2.72 | 2.03 | | | | |

In Urban Locality, the table No.33.2 shows that the mean and standard deviation of Male (2.64; 1.83) & Female (2.72; 2.03). The difference mean in male and female was 0.08. This shows that no significant difference was found in case of male and female in relation to FIFTH_ALTERNATIVES_ANXEITY (t=0.21, df=98, p=0.84)

Table-5.3: Comparison of Male and Female in relation to FIFTH_ALTERNATIVES_ANXEITY of Rural locality (n=50)

| | Mean | Std | 't' | df | sig | Mean difference |
|--------|------|------|------|----|------|-----------------|
| Male | 3.48 | 1.82 | 2.73 | 98 | 0.01 | 0.96 |
| Female | 4.44 | 1.69 | | | | |

In Rural Locality, the table No.33.3 shows that the mean and standard deviation of Male (3.48; 1.82) & Female (4.44; 1.69). The difference mean in male and female was 0.96. This shows that significant difference was found in case of male and female in relation to FIFTH_ALTERNATIVES_ANXEITY (t=2.73, df=98, p=0.01)

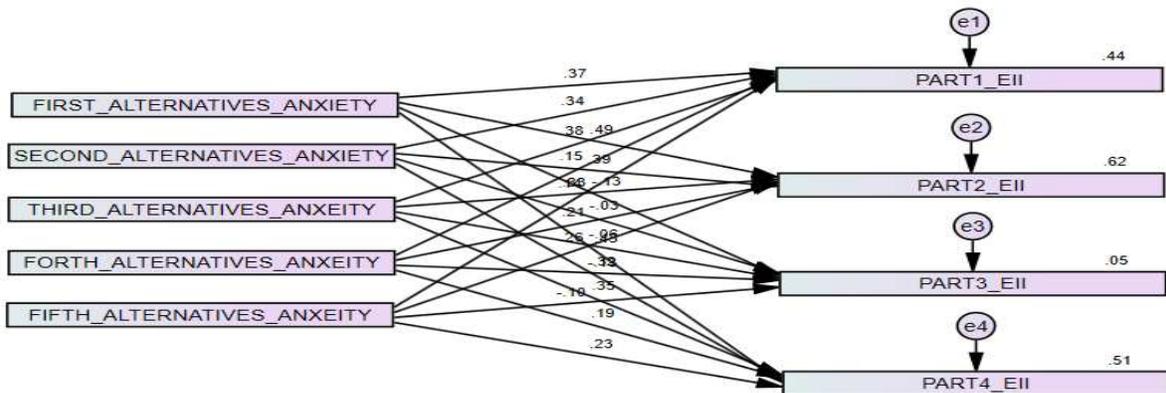


Fig-1: Path Analysis of Anxiety as a predictor on Emotional Intelligence different parts

Discussion Of Findings:

Overall, the study was supported by the findings of Alfonsi, G., Conway, M., & Pushkar, D. (2011) who revealed that Subjective social status seems to predict health outcomes, above and beyond the contribution of objective status. The present hypothesis was that neuroticism predicts subjective status and does so via the influence of neuroticism on objective status (i.e., education, occupation, and income), self-perceived illness, and greater negative affect. In turn, lower subjective status would be associated with more severe self-perceived illness. Older adults (N=341) shortly after retirement completed measures of neuroticism, attainment in education, occupation, and salary, and over 2 subsequent years, they completed measures of current subjective status, self-reported illness, and current negative affect. As hypothesized, greater neuroticism was associated with lower subjective status via lower objective status and more severe self-reported illness. However, current negative affect was not associated with subjective status, and subjective status did not predict future poorer subjective health. Allain, T. J., Matenga, J. A., Gomo, Z., Adamchak, D. J., & Wilson, A. O. (1996) demonstrated that, despite physical hardship, the majority of Zimbabwean elders are happy and 50% are satisfied with their lives and we have identified independent determinants of happiness and life satisfaction in this group. Characterization of these determinants allows us to predict that social changes such as rural/urban migration, declining family support and diminishing respect from children will have a negative effect on happiness and life satisfaction in our elders. Bishop, A. J., Martin, P., MacDonald, M., Poon, L., Georgia Centenarian Study, Jazwinski, S. M., Arnold, J. (2010) Findings also support a relationship between social resources and subjective well-being in later life. In particular, the association between social resources and life satisfaction was mediated through health impairment. These findings offer understanding relative to how health and social resources influence past and present assessments of subjective well-being among the elderly

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Factors Affecting To The Development Of Physical Of Students Aged From 6 To 10 In Northern Of Vietnam: The Longitudinal Study

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Abstract:

The research result proclaimed that parent's give-birth age, the first or the second children, parents' career, economy condition of families or positive exercise activity affect the physical development of elementary students from 6 to 10 years old. Keyword: give-birth age, career, economy condition, exercise activity, physical development.

Introduction

"Human physical development is the process of form nature and natural function alteration of body throughout personal life of it". Physical development is adhere to natural rules including the rule of mutual effect between genetic development tendency and tendency impacted by living condition, rules of mutual identification between structure alteration and function; each period by age range develops gradually and alter each other. However, Human physical development (PTTC) also depends on social living condition and activity of human (allocation condition and product utility as materials, education, work, activities,...). Therefore, *"the human physical development is affected by social with a certain level"*. To clarify that situation, we proceed to a research about natural and social factors that influence physical development of students from 6 to 10 in the North of Vietnam.

Research's purpose: Identify the effective level of:

- The influence of parents' give-birth age to physical development of students from 6 to 10 in the North of Vietnam.
- The influence of children order in the family to physical development of students from 6 to 10 in the North of Vietnam.
- The influence of parents' career to physical development of students from 6 to 10 in the North of Vietnam.
- The influence of economy condition to physical development of students from 6 to 10 in the North of Vietnam.
- The influence of positive exercise activity to physical development of students from 6 to 10 in the North of Vietnam.

Research methods

Research methods often regulated in sport fields are interview, pedagogy inspection, medical inspection, statistical mathematics, vertical observation method in 5 years among 831 students from 6 to 10 in the North (437 males and 394 females) via 15 standards divided into 3 groups: form, function and quality. These standards are used to solve the mentioned missions.

Research result

3.1 The influence of parents' give-birth age to physical development of students aged from 6 to 10 in Northern of Vietnam

- On the form: children from 6 to 10 born by parents from 20 to 30 years old have similar form as children were born by parents from 31 to 40 years old.
- On the function: Function indexes of children born by parents from 31 to 40 years old are lightly higher than children were born by parents from 20 to 30 years old. The difference of balance movement and DTS indexes have statistic meaning at probability of $P < 0.05$.
- On exercise quality: children born by parents from 20 to 30 years old have similar physical strength as children were born by parents from 31 to 40 years old. The difference does not have statistic meaning at probability of $P > 0.05$.

3.2 The influence of children order in the family to physical development of students aged from 6 to 10 in Northern of Vietnam (table 1)

- On the form: Children from 6 to 10 years old who are the first children in families have form indexes better than those who are the second children. The difference does not have statistic meaning at probability of $P > 0.05$.

- The function and exercise quality of children from 6 to 10 years old in the North who are the first children in families is lower than children who are the second. The difference does not have statistic meaning at probability of $P > 0.05$.

3.3 The influence of parents' career to physical development of students aged from 6 to 10 in Northern of Vietnam

Parents' career is closely related to the income and economy condition in a family. On the other hand, career also affects how parents take care of their children. Parents' career is divided into 3 groups: employee, farmer and freelancer. The result shows that:

- On the form and function: children from 6 to 10 whose parents are farmers have the lowest index. The difference has statistic meaning at probability of $P < 0.05$. Children whose parents are employees or freelancers have form indexes similar to each other. The difference does not have statistic meaning at probability of $P > 0.05$.

- On the exercise quality (physical strength): Children from 6 to 10 years old whose parents are farmers, employees or freelancers have physical strength indexes similar to each other. In general, the difference of physical strength of children in 3 groups does not have statistic meaning at probability of $P < 0.05$.

3.4 The influence of economy condition to physical development of students aged from 6 to 10 in Northern of Vietnam

- Through interview directly each student about economy condition with kinds as: a well-off family has built house, television and motorbike (15.29%), a bare living family does not have television and motobike (83.20%), an underfed family has to borrow from neighbors (1.71%).

- By identifying the economy condition of students above, the assessment of economy condition influence to students' physical development will not correct totally. However, by trying our best in this research condition, we bravely bring out the research result and hope scientists will study this issue more profound and meaningful. The result shows that underfed children is rare, so the economy condition influence will affect to children who are belong to well-off families and bare living families as follow:

+ On the form and function: Children families with good economic conditions tend to have forms better than children in bare living family. However, the difference was not enough statistical reliability.

+ On exercise quality (physical strength): The development is equivalent to each other. However, children in well-off families have better physical strength. Especially, the endurance of children in bare living families is better. The difference has statistic meaning at probability of $P < 0.05$.

3.5 The influence of positive exercise activity to physical development of aged from 6 to 10 in Northern of Vietnam

According to the regulations of the Ministry of education and training, the first grade in primary school students only has one hour a week for physical exercise. From grade 2 to grade 5, there is two hour a week for physical exercise. Each lesson lasts 40 minutes with 3 mandatory basic contents. Therefore, the sports activities of students in primary schools are basically similar. The problem of positive activities in research is that students walk or bicycle to school (the distance from home to school are from 1000m to 2000m) or students are taken to school by adults does have anything affect physical development? Clearly, students walking to school more active than students regularly brought to school by adults.

- On the form: The results of the study show that students who can walk or ride a bike to school have worse form than students who are taken to school. Although student's form at 6 years old is equivalent to each other, the difference of student's form at 10 years old has statistic meaning at probability of $P < 0.05$.

- On the function: Students who walk or bicycle to school have worse function activities than students who are taken to school. The differences are not has statistic meaning, but the fact that students who are taken to school have better function activities

- On the exercise quality (physical strength):

+ Strength group: Students who walk or bicycle to school have less strength than students who are taken to school. The difference does not have statistic meaning at probability of $P > 0.05$.

+ Skillful qualities, flexibility and endurance group: The results of the study show that students who walk or bicycle to school have less skillful qualities, flexibility and endurance than students who are taken to school. The difference has statistic meaning at probability of $P < 0.05$

Table 1. The influence of children order in the family to physical development of students at 10 years old in the Northern of Vietnam by the Longitudinal study.

| Test | Sex | The first child | | The second child | | t_{1-2} | P_{1-2} |
|-------------------------------------------------|--------|-----------------|----------------------|------------------|---------------------|-----------|-----------|
| | | n | Mean \pm SD | n | Mean \pm SD | | |
| Height (cm) | Male | 70 | 133.37 \pm 5.2 | 47 | 132.94 \pm 5.74 | 0.42 | 0.05 |
| | Female | 67 | 135.4 \pm 5.71 | 39 | 133.51 \pm 4.88 | 1.80 | 0.05 |
| Weight (kg) | Male | 70 | 31.04 \pm 5.42 | 47 | 31.28 \pm 6.31 | 0.21 | 0.05 |
| | Female | 67 | 30.78 \pm 4.56 | 39 | 30.01 \pm 5.03 | 0.79 | 0.05 |
| Quetelet Index (kg/dm) | Male | 70 | 2.32 \pm 0.34 | 47 | 2.35 \pm 0.43 | 0.37 | 0.05 |
| | Female | 67 | 2.27 \pm 0.29 | 39 | 2.25 \pm 0.35 | 0.36 | 0.05 |
| BMI Index (kg/m ²) | Male | 70 | 17.36 \pm 2.21 | 47 | 17.61 \pm 3.08 | 0.47 | 0.05 |
| | Female | 67 | 16.76 \pm 2.05 | 39 | 16.82 \pm 2.6 | 0.13 | 0.05 |
| Holding force of the dominant hand(kg) | Male | 70 | 17.49 \pm 2.51 | 47 | 17.31 \pm 2.19 | 0.39 | 0.05 |
| | Female | 67 | 16.39 \pm 1.97 | 39 | 16.57 \pm 2.38 | 0.41 | 0.05 |
| Lie supinely and bend knees and body (time/30s) | Male | 70 | 20 \pm 3.04 | 47 | 19.7 \pm 3.31 | 0.49 | 0.05 |
| | Female | 67 | 16.81 \pm 2.49 | 39 | 17.59 \pm 2.98 | 1.38 | 0.05 |
| Long jump at the spot (cm) | Male | 70 | 158.79 \pm 12.11 | 47 | 162.81 \pm 13.13 | 1.68 | 0.05 |
| | Female | 67 | 149.06 \pm 8.57 | 39 | 144.95 \pm 9.67 | 2.20 | <0.05 |
| Run 30m(s) | Male | 70 | 5.86 \pm 0.31 | 47 | 5.84 \pm 0.39 | 0.23 | 0.05 |
| | Female | 67 | 6.13 \pm 0.34 | 39 | 6.1 \pm 0.41 | 0.38 | 0.05 |
| Shuttle run 4x10M(s) | Male | 70 | 11.87 \pm 0.6 | 47 | 11.87 \pm 0.7 | 0.03 | 0.05 |
| | Female | 67 | 12.39 \pm 0.51 | 39 | 12.35 \pm 0.51 | 0.42 | 0.05 |
| Flexible body bending (cm) | Male | 70 | 6.23 \pm 2.29 | 47 | 6.07 \pm 2.37 | 0.35 | 0.05 |
| | Female | 67 | 8.43 \pm 2.46 | 39 | 7.62 \pm 3.2 | 1.38 | 0.05 |
| Run 5minutes(m) | Male | 70 | 868.17 \pm 77.73 | 47 | 871.55 \pm 69.19 | 0.25 | 0.05 |
| | Female | 67 | 858.66 \pm 57.59 | 39 | 863.95 \pm 61.51 | 0.44 | 0.05 |
| Balance movement(cm) | Male | 43 | 6.35 \pm 8.8 | 23 | 5.35 \pm 5.38 | 0.49 | 0.05 |
| | Female | 39 | 4.82 \pm 4.61 | 23 | 4.96 \pm 4.63 | 0.11 | 0.05 |
| Tepping test | Male | 43 | 48.98 \pm 6.06 | 23 | 49.87 \pm 6.47 | 0.55 | 0.05 |
| | Female | 39 | 48.26 \pm 6.38 | 23 | 50.26 \pm 5.57 | 1.24 | 0.05 |
| Heart function (HW) | Male | 39 | 10.06 \pm 0.78 | 21 | 10.37 \pm 0.61 | 1.56 | 0.05 |
| | Female | 39 | 10.1 \pm 1.1 | 24 | 10.37 \pm 0.94 | 0.97 | 0.05 |
| Living capacity (ml) | Male | 43 | 1589.53 \pm 278.61 | 23 | 1610.87 \pm 272.2 | 0.30 | 0.05 |
| | Female | 39 | 1483.33 \pm 308.91 | 23 | 1456.52 \pm 307.9 | 0.33 | 0.05 |

Conclusions

- The research results proclaim that parents' give-birth age in the North of Vietnam is relatively stable and various from 20 to 40 years old. This age range does not influence the level of physical development of children. First children in families have better forms than children who are the second. However, the functions and exercise qualities of second children in the families are better than the first children.
- The profession of the parents and economic conditions affect the morphological development, function and the qualities of children at 10 years old. However, at this age, the influence of the economic factor does not clearly express.
- Positive activities for male and female children from 6 to 10 years old is the different, but this difference does not have statistic meaning. The active children (students who walk or bicycle to school) have less morphology, function and pigments than less active children (students who are taken to school).
- The physical development of elementary school students is influenced by the natural and social factors. Therefore, the teachers need to associate closely with families to make use of this element as most effective as possible.

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Occupational Stress And Job Satisfactions Among The Physical Education Teachers Of Kashmir

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Abstract

The purpose of the study was to investigate the "occupational stress and job satisfactions among the physical education teachers of Kashmir state". 333 subjects of physical education teachers working in 223 government and 110 private schools were selected randomly from 10 districts of Kashmir. Male group 130 teachers were taken from rural and 104 from urban schools whereas the female group comprised of 50 and 50 teachers from rural and urban schools respectively. The self made "job satisfaction questionnaire" was developed and used. The questionnaire contains total 36 items each to be rated on a 5 point likert scale. The raw scores were statistically analyzed in terms of means, standard deviation, minimum, maximum, and range and t-ratio. T-Test was used to compare males and female and urban and rural area teachers for their occupational stress, job satisfaction. Male and female teachers from rural and urban areas working in government and private schools from all the three variables. It was concluded that there was no significant difference in occupational stress and job satisfaction among physical education teachers working in Government & private schools and was also found significant difference in occupational stress and job satisfaction among physical education teachers working in urban and rural schools. KEYWORDS: - Male, Female, Physical Education Teachers

Introduction:

Stress is defined as a response to environmental demands or pressures. The word stressor has been used for the stimulus that provokes a stress response (Farlex Medical Dictionary, 2003-2016). Stress is a complex issue but generally it is defined as a physical, mental, or emotional reaction resulting from an individual's response to environmental tensions, conflicts, pressures, and similar stimuli (Fontana, Abouserie, 1993). Stress can be external (from the environment, psychological, or social situations) or internal (illness, or from a medical procedure). Occupational stress is the body's response to any job-related factor that threatens to disturb the person's equilibrium. There are several misleading notions that exist about job satisfaction. One such fallacy is that a happy employee is a productive employee (Syptak, Marsland, & Ilmer, 1999). Another fallacy is that pay is the most important factor in job satisfaction. In reality, employees are more satisfied when they enjoy the environment in which they work (Berry, 1997). In fact, a low paying job can be seen as satisfying if it is adequately challenging or stimulating.

Methodology:- 333 physical education teachers working in 223 government and 110 private schools were selected randomly from 10 districts of Kashmir. In the male group 130 teachers were taken from rural and 104 from urban schools of Kashmir whereas the female group comprised of 50 and 50 teachers from rural and urban schools.

The self made “job satisfaction questionnaire” was developed and used. It is basically standardized to measure job satisfaction. The questionnaire contains total thirty six items each to be rated on a 5 point likert scale. This scale includes nine dimensions of job satisfaction namely: - 1. .Pay – amount and fairness or equity of salary.2. Promotion opportunities and fairness of promotion.3.Supervision fairness and competence at managerial tasks by ones supervisor.4. Benefits insurance, vacation, and fringe benefits. 5. Contingent procedures sense of respect, recognition and appreciation.6. Operating procedure policies, procedures, rules, perceived red tape. 7. Coworkers perceived competence and pleasantness of one’s colleagues.8. Nature of work enjoyment of the actual tasks themselves.9. Communication sharing information within the organization (verbally or in writing).

Statistical Technique

The data collected from the subjects were treated statically, analyzed in terms of means, standard deviation, minimum, maximum, and range and t- ratio. T- Test was used to compare males and female and urban and rural area teachers for their occupational stress, job satisfaction. I.e. Male and female teachers from rural and urban areas working in government and private schools from all the three variables.

Results:-

Table -1 Comparison of occupational stress among male and female physical education teacher

| Gender | Mean | Sd | Md | t-value | Df | Sig |
|--------|--------|-------|----|---------|-----|------|
| Male | 121.70 | 11.64 | | | | |
| | | 2.14 | | 1.590 | 331 | .113 |
| | 119.55 | 10.35 | | | | |

Not significant at 0.05 level (DF= 331, tabulated “t” value = 1.96)

Table 1.Shows that there exists mean difference between male and female is 2.14 and the calculated t value is 1.590 which is less than the tabulated value (1.96) at .05 level of significance. This it is concluded that there is no significant difference in the level of occupational stress among male and female physical education teachers.

Table-2Comparisons of occupational stress between government and private physical education teachers (n=333).

| Gender | Mean | Sd | Md | t-value | Df | Sig |
|------------|--------|-------|----|---------|-----|------|
| Government | 121.11 | 11.99 | | | | |
| | | .152 | | .116 | 331 | .908 |
| Private | 120.96 | 98 | | | | |

Not significant at 0.05 level (DF= 331, tabulated “t” value = 1.96)

Table-2.Shows that there exists mean difference between government and private is .152 and the calculated t value is .116 which is less than tabulated value (1.96) at .05 level of significance. Hence the null hypothesis, “that there is no significant difference in occupational stress and job satisfaction among physical education teachers working in Government and Private schools” stands. Thus it is concluded that there is no difference in level of occupational stress among govt., and private physical education teacher.

Table -3 Comparison of occupational stress between rural and urban physical education teachers (n=333)

Not significant at 0.05 level (DF= 331, tabulated “t” value = 1.96)

Table-3.Shows thatthere exists mean difference between government and private are .152 and the

| Area | Mean | Sd | Md | t-value | Df | Sig |
|-------|----------|----------|----|---------|-----|------|
| Rural | 120.4278 | 11.47065 | | | | |
| | | 1.38922 | | 1.118 | 331 | .264 |
| Urban | 121.8170 | 11.09080 | | | | |

calculated t value is .116 which is less than tabulated value (1.96) at .05 level of significance., hence the null hypothesis, “that there is no significant difference in occupational stress and job satisfaction among physical education teachers working in Government private schools” stands. Thus it is concluded that there is no difference in level of occupational stress among govt. and private physical education teacher.

Table-4 Comparison of occupational stress between rural and urban physical education teachers (n=333)

| Area | Mean | Sd | Md | t-value | Df | Sig |
|-------|----------|----------|---------|---------|-----|------|
| Rural | 120.4278 | 11.47065 | 1.38922 | 1.118 | 331 | .264 |
| Urban | 121.8170 | 11.09080 | | | | |

Not significant at 0.05 level (DF= 331, tabulated “t” value = 1.96)

Table-4. Shows that there exists mean difference between rural and urban is 1.39 and the calculated “t” is 1.11* which is less than the tabulated value (1.96) at 0.5 level of significance. This it is concluded that there is no difference in level of occupational stress among rural and urban physical education teachers.

Table –5 Comparison of job satisfaction between male and female physical education teachers (n=333)

| Gender | Mean | Sd | Md | t-value | Df | Sig |
|--------|--------|------|------|---------|-----|------|
| Male | 117.05 | 8.72 | 3.55 | 3.430* | 331 | .001 |
| Female | 113.51 | 8.43 | | | | |

Not significant at 0.05 level (DF= 331, tabulated “t” value = 1.96)

Table -5. It shows that there exists mean difference between male and female is 3.55 and the calculated t value is 3.430 which is much higher than the tabulated value (1.96) at 0.05 level of significance. Hence it is concluded that there is difference in level of job satisfaction among male and female physical education teachers.

Table-6 Comparisons of occupational stress between government and private physical education teachers (n=333).

| Gender | Mean | Sd | Md | t-value | Df | Sig |
|------------|--------|------|------|---------|-----|------|
| Government | 116.26 | 9.19 | .778 | .760 | 331 | .448 |
| Private | 115.49 | 7.88 | | | | |

Not significant at 0.05 level (DF= 331, tabulated “t” value = 1.96)

Table-6. Shows that there exists mean difference between government and private is .79 and the calculated t value is .760 which is less than tabulated value (1.96) at .05 level of significance. Hence the null hypothesis, “that there is no significant difference in occupational stress and job satisfaction among physical education teachers working in Government and Private schools” stands. Thus it is concluded that there is no difference in level of occupational stress among govt. and private physical education teacher.

Table –7 Comparison of occupational stress between rural and urban physical education teachers (n=333)

| Area | Mean | Sd | Md | t-value | Df | Sig |
|-------|--------|------|------|---------|-----|------|
| Rural | 116.65 | 9.20 | 1.38 | 1.441 | 331 | .151 |
| Urban | 115.26 | 8.21 | | | | |

Not significant at 0.05 level (DF= 331, tabulated “t” value = 1.96)

Table-7. Shows that there exist mean difference between rural and urban is 1.39 and the calculated t value is 1.44 which is less than tabulated value (1.96) at .05 level of significance. Thus it is concluded that there is no difference in level of job satisfaction among rural and urban physical education teachers.

Finding Of The Study

1. There existed no significant differences between male and female physical education teachers working in various schools of Kashmir on the variable of occupational stress as the "t" ratio was found to be non-significant between the two groups at 0.05 level of significance.
2. It was noticed that no significant differences existed among the government and private physical education teacher as the "t" ratio was found to be non significant at 0.05 level of significance.
3. It is concluded from the fact that there existed no difference in the level of occupational stress among rural and urban physical education teachers. The "t" ratio was calculated to be statistically non-significant between the two groups.

Job satisfaction

1. Significant differences on job satisfaction were observed between male and female physical education teachers working in various schools as the "t" ratio was found to be significant statistically between the two groups. The male teachers have been found to have more job satisfaction as compared to female teachers.
2. While comparing the job satisfaction among the government and private schools physical education teachers, it was noticed that no significant differences existed among them as the "t" ratio was found to be non-significant at .05 levels. Thus both govt. and private school physical education teachers were having equal job satisfaction on the basis of type of school.
3. It has also been observed that the teachers working in rural and urban area schools does not differed significantly on the variable job satisfaction as the "t" ratio was found to be non-significant at 0.05 level. Thus both rural and urban physical education teachers were found to be satisfied with their jobs.

Conclusions

1. On the variable of occupational stress, no significant differences exists between male and female physical education teachers working in the schools of Kashmir also no significant differences was found between rural and urban area teachers. Physical Education teachers belonging to both govt. and private schools are equally stressed on the variable of occupational stress means that there is no difference in their stress level.
2. Male teachers are found better satisfied in their jobs as compared to female physical education teachers. Teachers working in rural and urban areas are found to be equally satisfied as no difference has been found between the two variables. The physical Education teachers working in government and private schools shows no difference in job satisfaction.

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Sports Talent Identifying and Grooming Public Sector Undertakings and Corporate Firms in India: An Analytical Study

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ABSTRACT: Sports are a world wide phenomenon today. In no period of the world history sports was so popular, organized and important as it is today. Considering the importance of sports competitions, one can say that it has become a social need of the present civilization, which must be met by the societies and the government. Although talent identification and development programmes have gained popularity in the recent decades, there remains a lack of consensus in relation to talent identification and there is no uniformly accepted theoretical framework to guide current practice. The success rates of talent identification and development programmes have rarely been assessed and the validity of the models applied remains highly debated. A conceptual framework that acknowledges both genetic and environmental influences and considers the dynamic and multidimensional nature of sport talent needs to be developed and set in action. **Keywords:** Sports Talent; Talent Identification; Talent Grooming; Public Sector Undertakings; Corporate firms.

Introduction

The history of sports in India dates back to the Vedic era. There is a fascinating link between Greece and India, which stretches back to 975 B.C. It is more than likely that many of today's Olympic disciplines are sophisticated versions of the games of strength and speed that flourished in ancient India and Greece. Chess, wrestling, polo, archery and hockey (possibly a fall-out from polo) are some of the games that have originated in India.

Festivals and local fairs are the natural venues of indigenous games and martial arts. In the post-independence era, the government has made special efforts to preserve and nurture the awesome cultural heritage, by setting up a number of new incentives, and by heightening media exposure at the national level, to propagate and popularise indigenous games.

Over the years after independence, the Government of India has launched several programmes to encourage sports in the country. However, we are yet to achieve a place of pride in international sports. We are lagging much behind even among the Asian countries. This indicates that implementation of sports programmes in the country leaves for much space for progress.

International sporting success helps generate pride and a sense of national identity, and a “feel good factor”. It also boosts the profile of a sport and increases interest in participation. However, experience shows that such interest is rarely sustained as facilities are poor and clubs do not have the capacity to meet new demand. If we are to build on our already strong performance in international sport, we must be more systematic in spotting and developing talented competitors. Apart from government agencies, Public Sector Undertakings (PSUs) and Corporate Firms should lead this work, in successful talent scouting and recognizing talent development plans which should have appropriate reach deep down towards the grassroots of sport. In India though, there are not many PSUs and corporate firms directly or indirectly involved in the identification and grooming of sports talent but in the last two decades, this list has definitely multiplied certain folds. A brief account of these agencies has been sequently presented below:

TATA SPORTS CLUB

The Tata group has been committed to development of sports and promoting sportspersons for over three-quarters of a century. Tata Sports Club (TSC) came into existence on July 1, 1937 with its endeavours directed at spotting and then developing potential by providing an early platform for those who deserve no less.

To formally train budding talent, the group runs three dedicated sports academies for football, archery and mountaineering, each supported by a network of feeder centres that help in identifying emerging talent across the country.

The **Tata Football Academy**, set up in Jamshedpur in 1987, selects boys of U-14 age group and trains them for a four-year period in world-class facilities. A total of 147 cadets up until 2013 have passed out from the academy and have turned out to be professional football players.

The **Tata Archery Academy**, established in Jamshedpur in 1996, has produced illustrious archers who have gone on to win national and international honours.

The **Tata Adventure Foundation** set up in 1984, headed by Bachendri Pal, the first Indian woman to climb Mount Everest, has rock-climbing, river rafting and parasailing on its alternate sports agenda. The Adventure Foundation has so far provided training, mentoring and financial support for five expeditions to Mount Everest along with numerous other expeditions across the continent.

These academies are further supported through dedicated sports infrastructure such as a JRD Tata Sports Complex in Jamshedpur, a 40,000-capacity arena with facilities for athletics, archery, boxing, basketball, volleyball, boxing, tennis and more followed by the Keenan Stadium, a 22,000 capacity stadium, which is a regular venue for international cricket in Jamshedpur.

Over the years, these initiatives have helped produce 5 Olympic Games winners, 6 World Championship winners, 36 Asian Games winners, 33 Asian Championship winners, 4 Commonwealth Games winners, 6 Commonwealth Championship winners, 11 Padmashrees, 41 Arjuna awardees, 4 Dronacharya awardees and 1 Padma Bhushan, speaking volumes of the commitment of Tatas to Indian sport.

ONGC SPORTS

Oil and Natural Gas Corporation Limited (ONGC) is an Indian multinational oil and gas company headquartered in Dehradun, India. It is a Public Sector Undertaking (PSU) of the Government of India, under the administrative control of the Ministry of Petroleum and Natural Gas. ONGC was founded on 14 August, 1956 by Government of India.

ONGC has always been in the forefront when it comes to the development and promotion of sports in the country. Under its sports policy, ONGC has identified promising and hidden sports talent in the country and nurtured them to take up challenges at the national and international levels. Building of infrastructure, training in the country and abroad, providing necessary kits, instruments, endowing scholarship support and sponsorship to the young and upcoming talented sportspersons are an integral part of ONGC's sports credo.

ONGC received the prestigious Rashtriya Khel Protsahan Puruskar from the President of India in 2014, for its immense contribution in sports talent identification, development and promotion of sports in the country has the highest recognition. This glory does not stop there as among the international level achievers both in past and in present includes 27 National Awardees (01Khel Ratna, 02 Padma Shri and 24 Arjun Awardees).

ONGC presently has 179 active sportspersons and 159 players on scholarships, spread over 23 game disciplines. Out of them, 93 sportspersons are international players who have been regularly representing the country in Cricket, Chess, Table Tennis, Athletics, Badminton, Volleyball, Hockey, Lawn Tennis, Football and Shooting.

MRF PACE FOUNDATION

At a time when sports training was hardly a viable business proposition in India, the late Ravi Mammen defied all sports and business critics to set up MRF Pace Foundation at Madras Christian College Higher Secondary School, Chetpet, Chennai. The foundation was born in the year 1987 to make up for the fact that the Indian cricket team lacked quality pace bowlers. He combined forces with the Australian pace legend Dennis Lillee for the identification and grooming of promising fast bowlers from different age-groups, all over the country and providing them with world-class training facilities, together with the understanding that it would be a long term process requiring patience and commitment.

In 1992 MRF pace foundation opened its doors to other countries such as Sri Lanka, Australia, New Zealand, Bangladesh, England and West Indies. The basis of this relationship is an exchange program for coaches, bowlers and other staff helping them share both talent and expertise.

Today, the Pace Foundation has earned itself the reputation of being the most sought-after institution for honing fast bowling skills across all test-playing countries. Apart from a world-class gymnasium, Olympic-sized swimming pool, its own cricket stadium and residential facilities, the academy also exposes trainees to four different turf pitches. Fast bowlers who trained with the MRF Pace Foundation that went on to represent India include Javagal Srinath, Irfan Pathan, Munaf Patel, Venkatesh Prasad, Rudra Pratap Singh, Zaheer Khan and S. Sreesanth. Besides Indian players, foreign players like Chaminda Vaas, Henry Olonga, Heath Streak and Australian fast bowlers Glenn McGrath, Mitchell Johnson and Brett Lee have also trained at the Foundation. Glenn McGrath was appointed director of the Foundation on September 2, 2012, replacing Dennis Lillee, who has held the post since its inception in 1987.

PRAKASH PADUKONE BADMINTON ACADEMY (PPBA)

The Prakash Padukone Badminton Academy (PPBA) was launched on October 1st, 1994. Located in the heart of vibrant Bangalore city, the Academy was started by Mr. Prakash Padukone, Mr. Vimal Kumar and Mr. Vivek Kumar - all stalwarts of Indian Badminton.

The Prakash Padukone Badminton Academy is housed in a state-of-the-art facility with superior amenities. Apart from the Badminton courts, players have access to a swimming pool, fully-equipped gymnasium, squash court and restaurant. The Prakash Padukone Badminton Academy imparts top-notch training and coaching to young players who are selected to the Academy on merit, and to whom training and facilities are provided on a scholarship basis.

The Academy has hosted teams and players from Denmark, England, Scotland, Canada, Malaysia, Indonesia, Belgium, Mauritius, Sri Lanka, Czech Republic etc. and has an informal tie-up with Aarhus Badminton Center in Denmark run by former World No. 1, Morton Frost; A similar association also exists with Badminton England in Milton Keynes. Thus, imparting latest training updates and international exposure to upcoming shuttlers.

Encouraged by the success of the Bangalore Centre, PPBA has amalgamated with the Tata Group to form two more TATA PADUKONE TRAINING CENTRES based at Pune and Mumbai. Tata Padukone Training Centre at Pune was established in July, 1999 whereas its Mumbai Centre was opened in May 2009. The sponsorship has helped in covering essential expenses of the academy, day-to-day expenses, and participation of academy players in international tournaments and camps.

The PPBA is also the training base for many of India's top Badminton players, who would make ideal sparring partners for athletes during their training stint. In short, the PPBA has produced multiple National and International level champions and is renowned around the country for producing world-class badminton players.

NATIONAL CRICKET ACADEMY

The National Cricket Academy is located at Chinnaswamy Stadium Bangalore, Karnataka in India. The NCA was the brainchild of cricket administrator and former BCCI President Raj Singh Dungarpur. Academy was established in year 2000 as a cricket facility of the Board of Control for Cricket in India (BCCI) for training young cricketers who are identified as having the potential to represent the Indian cricket team.

In 2014, BCCI is proposing a tie-up with the both Cricket Australia and the England and Wales Cricket Board (ECB) to get experts in for helping draw the new structure. BCCI has decided to put in place a new structure on the lines of the state-of-the-art high performance centres based in Australia and England as part of the revamp of the National Cricket Academy. In the new plan, the NCA will also have a tie-up with the MRF Pace Foundation to train the fast bowlers from across the country. Further, from 2000 onwards NCA also instituted a yearly scholarship to three promising players in the form of a visit to Australia's Centre of Excellence in Brisbane.

NCA has contributed substantially to the Indian cricket in the form of outstanding cricketers leading country from the front on the international platform. A brief listing of these can be summed up as: Mohammad Kaif, Shiv Sunder Das, Parthiv Patel, Gautam Gambhir, Lakshmi pathy Balaji, Shikhar Dhawan, Suresh Raina, VRV Singh, RP Singh, Cheteshwar Pujara, Virat Kohli and Bhuvneshwar Kumar.

GOPICHAND BADMINTON ACADEMY

Gopichand Badminton Academy is a badminton training facility spread over 5 acres (2.0 ha) of land in Hyderabad, India. Founded by the 2001 All England Open Badminton Champion, Pullela Gopichand,

the facility trains several badminton players and has many world class shuttlers such as Saina Nehwal, Parupalli Kashyap, P. V. Sindhu, Arundhati Pantawane, Gurusai Datt and Arun Vishnu. The Academy has also served as a venue for major sporting events. The 2009 Indian Open was held here while the 2009 BWF World Championships used it as a training venue.

OLYMPIC GOLD QUEST

Olympic Gold Quest is a program of the Foundation of Sports and Games founded in 2001 by Indian sporting icons Geet Sethi and Prakash Padukone to identify and support Indian athletes with a proven track record and who have the potential to win Olympic gold medals. In 2010, Leander Paes and Viswanathan Anand also joined the Board of Directors. Viren Rasquinha, former India hockey captain, is the current CEO of Olympic Gold Quest.

OGQ brings together eminent sportspersons, business leaders, sportswriters and talent scouts to identify emerging athletes, understand their training needs and requirements and raise funds to be used for supporting athletes with Olympic medal winning potential. OGQ strives to compliment the efforts of the Indian Government and various Sports Federations in identifying and funding the best and most deserving medal prospects for the Olympic Games.

OGQ experts systematically oversee and benchmark the progress of athletes and provide funds to them so that they have access to the best coaching and training facilities and exploit scientific aids including planned nutrition and diet.

OGQ is identifying talented junior athletes in the age group of 11-18 and grooming them for 2020-2024 Olympics. Each of the athletes is given a monthly scholarship and mentoring by a team of experts. Moreover, OGQ has also shortlisted six individual disciplines viz. Shooting, Athletics, Boxing, Wrestling, Archery and Badminton as the ones in which Indian athletes have the strongest potential to win Olympic medals. In nutshell, OGQ supports 44 athletes in the six selected disciplines till date.

OTHER AGENCIES

Apart from the Public Sector Undertakings (PSUs) and Corporate Firms cited above there are several other NGOs, private entities as well as individuals who want India to excel not only in team sports but in individual events too at the world arena and for that they are willing to help talented individuals pursue their dreams. These agencies comprehend that if the right talent is identified at the right age and are provided proper funds and mentorship they can go on to become world-beaters. A concise list of these agencies engaged in the identification and nurturing sports talent in India is given underneath:

Bhiwani Boxing Club (BBC), Bhiwani, Haryana.

Bhaichung Bhutia Football Schools (BBFS), in the 6 cities across the Country.

Mahesh Bhupati Tennis Academy (MBTA), comprising 35 centres across the Country.

Mary Kom Boxing academy, Imphal, Manipur.

GunForGlory, Balewadi, Pune.

Anglian Medal Hunt Company (AHMC), Dehli.

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Status Of Physical Fitness Among Students Of Ballari University Ballari

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Introduction

Physical fitness is very important essential for universally accepted that has success in various activities of games and sports mainly depend upon the physical fitness of its participation. Physical fitness for health and efficiency is fourth coming all over the world; still a lot of promotional and educative efforts are called for to bring about desirable attitudes especially in the youth, collage going students towards physical activates and sports to develop physical fitness. Physical fitness is basic need for participation in games and sports. The fitness level of various physical fitness components is most important to choice of sport events. The basic level fitness has vital role in improving any sport performance but there seems to be a lack of specific knowledge regarding the physical fitness of male and female. The present study was to compare the physical fitness among male and female in physical education students. Strength is a conditional ability i.e. it depends largely on the energy liberation process in the muscles strength is also perhaps the most important motor ability in sports.

Statement Of The Problem

The purpose of the study is to find the significance difference of physical fitness components among male and female of students in Ballari University Ballari.

Objectives

The following are objectives of Study

1. To study the general physical fitness components of students.
2. To compare the physical fitness components among male and female students of VSKU ballari.
3. To test the physical ability components of VSKU ballari students.

Hypothesis

The Hypothesis set for the study are:

1. There will be the significance difference between the male and female students of vsku ballari.
2. There will be significance difference between physical fitness components of vsku ballari students.

Samples

Keeping major objectives of the study in view, appropriate design is adopted. The study was conducted between male and female students of Ballari University Ballari.

Sample was collected from students Gulbarga University department of physical education. Thus the sample selected was designed on variables like speed, endurance, strength, flexibility and agility.

Tools

The following motor ability tests have been used to collect the information in the study personal data was used to physical fitness test and related status of the subject.

1. MOTOR ABILITY TEST:

| SI.No | Motor Ability | Test | Unit of measurement |
|-------|---------------|------------------------|---------------------|
| 1 | Speed | 50 yard dash | Time |
| 2 | Endurance | 12Min.Run & Walk | Distance |
| 3 | Flexibility | Sit & Reach Test | Inches |
| 4 | Agility | Shuttle run 10x4 yards | Time |
| 5 | Strength | Pull Ups | Score |

Data Analysis:

To meet the objective of the study and to verify the formulated hypotheses the data were statistically analyzed. The 't' test was calculated.

Table -1 Mean, SD and t-values of Physical fitness tests of Male and female Pre-Test (N=50)

| Gender | | Speed | Endurance | Flexibility | Agility | Strength |
|---------|----|--------|-----------|-------------|---------|----------|
| Male | M | 10.45 | 2023.1 | 2.10 | 15.54 | 11.62 |
| | SD | 1.20 | 164.2 | 1.68 | 2.18 | 2.38 |
| Female | M | 10.38 | 1924.7 | 2.08 | 14.22 | 11.47 |
| | SD | 1.67 | 161.9 | 1.56 | 1.81 | 2.78 |
| t-value | | 4.19** | 7.30** | 0.17 | 4.03** | 3.35** |

** Significant at 0.01 level

An attempt is made to explore the gender differences in the motor tests in both pre and post test. The results given in Table-1. Clearly reveal that there are significant gender differences in the motor test like speed, endurance, flexibility, agility and strength pre test. The t-values on these tests are significant to suggest the significant differences in the ability.

Table-2 Mean, SD and t-values of Physical fitness tests of Male and Female Post Test (N=50)

| Gender | | Speed | Endurance | Flexibility | Agility | Strength |
|---------|----|--------|-----------|-------------|---------|----------|
| Male | M | 9.12 | 2026.3 | 2.42 | 12.01 | 15.25 |
| | SD | 1.40 | 152.5 | 1.20 | 1.28 | 2.67 |
| Female | M | 9.50 | 2121.5 | 3.52 | 11.20 | 14.51 |
| | SD | 1.57 | 164.6 | 1.66 | 1.57 | 2.15 |
| t-value | | 2.85** | 4.78** | 0.466 | 2.80** | 3.24** |

** Significant at 0.01 level

Table-2 reveals the mean scores of both male and female in all the five motor tests after the training was given. It can be seen that in endurance the males and in agility test females have significantly higher means than the females. t-values on both the two tests are significant which reveal the significant differences between the two genders. Thus females have outscored males in majority of the motor tests both in pre and post sessions.

Conclusion:

The above observations it is evident that the students are more physically fit. There is a significant effect on the motor test of endurance of the both gender. There is a significance difference in motor test of agility between pre and post test. There is a significance influence of motor test on flexibility of students. There is a significance difference in motor test of strength between male and female. The components of physical fitness (strength, endurance, flexibility, speed, agility) can be maintained only through regular exercises. Males are more physically fit then females. Further it's clearly states that there is a significant difference between male and female in physical fitness.

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History Of Kabaddi

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Introduction:

Kabaddi is basically an outdoor team game, played in the tropical countries of Asia. This indigenous game of India was adopted by other countries in Asia viz. Pakistan, Nepal, Bhutan, Bangladesh, Sri Lanka, Maldives, Malaysia and more recently by Japan and China.

The excitement and thrill provided by the game has made it very popular and Kabaddi is rightly called the 'Game of the masses', since spectators totally involve themselves and give the players a great deal of encouragement. The game requires no equipment whatsoever, and the rules of the game are very easy to comprehend. This is the reason for the popularity of the game in rural areas, since rural youth in India can ill-afford the sophisticated equipment demanded by other sports.

The game demands agility, muscular co-ordination, breath holding capacity, quick response and a great deal of presence of mind. Kabaddi was probably invented to develop defensive responses by an individual against group attacks and a group's responses to an individual attack.

This is the only combative sport in which offence is an individual effort whereas defence is a group effort. For an individual to face upto seven opponents and remain unscathed is no mean achievement. This calls for tremendous fitness of body and mind and the ability to concentrate as well as anticipate the opponent's moves. This can only be achieved with a lot of tactical preparation and manoeuvring.

Kabaddi has also been related to Yoga, since 'Pranayama of Yoga, which means taking a deep breath and with-holding it plays a major role in Kabaddi in the form of 'CANT'. Yoga is the means to control body and mind and has gained world-wide popularity. Yoga has become an essential part of the curriculum of sports and in almost every walk of life. 'CANT' which has a relation to

'Pranayama' is the continuous utterance of the approved term 'Kabaddi' while with-holding breath by the raider during the entire duration of his attack. 'CANT' is the means by which internal organs are exercised by controlling breath as in Yoga together with physical activity as in any other sport. This is the only game which combines Yoga with vigorous physical activity.

Kabaddi believes in the maxim of a strong mind in a strong body. This inexpensive game should be given the maximum encouragement since it is well suited for developing countries to realize the underlying spirit of sports, which is health for all.

History And Development

The origin of the game dates back to pre-historic times. The game was played all over the country in various forms. It was known as HU-TU-TU in Western India, HA-DO-DO in Eastern India and Bangladesh, Chedugudu in Southern India, Kaunbada and various other names in Northern India. Kabaddi may have been derived from the term 'Kaunbada' which means a challenge to the opponent. Some of the major forms of the game are Amar, Gemini, Sanjeevini and the game was played as per the situation with flexible rules.

All these forms were synthesized to the present form of Kabaddi.

Maharashtra is the pioneer state to popularize this game and bring it to the national platform. It was only in 1918 that certain rules and regulations were laid down and efforts were made to give the game a National status. The rules and regulations were brought out in print for the first time in 1923 and an All India competition was conducted the same year at Baroda on the basis of these rules. The game received international exposure during the 1936 Olympic Games at Berlin when it was demonstrated by the Hanuman Vyayam Prasarak Mandal, Amravathi, and it received good appreciation.

Kabaddi was introduced in the Indian Olympic Games at Calcutta in 1938. An All India Kabaddi Federation came into existence during 1950. Regular National Championships commenced from the year 1952. The first men's Nationals were held in Madras and the first women's Nationals were held in Calcutta in 1955. New rules were framed in 1954 at the National Championship held in New Delhi. Efforts were made to demonstrate the game in the World Youth Festival held at Moscow in 1957 but unfortunately due to various reasons this could not be accomplished.

The Indian University Sports Control Board included Kabaddi as one of the main sports disciplines in their curriculum during 1961. The School Games Federation of India included the discipline in the school games during 1962.

The Amateur Kabaddi Federation of India, a new body, came into existence in the year 1972 with the prime motive of organizing competitions at the National level and popularizing the game in the neighbouring countries. Junior and Sub- Junior sections were also included in the national competitions.

The National Institute of Sports, Patiala, the premier institute to develop sports in the country included the game in the coaching curriculum with effect from 1971. Since then, qualified coaches are being produced every year, to train players at different levels in a systematic and scientific manner.

The Indian men's team toured Bangladesh in 1974 as a part of the Cultural Exchange Programme and played test matches in different parts of the country. The Bangladesh team visited India in 1979 and played 5 test matches in our country.

The Asian Amateur Kabaddi Federation was formed in the year 1978, at Bhillai, on the occasion of the silver jubilee of National Championships in Kabaddi. The first Asian Championship was conducted in the year 1980 at Calcutta. In 1981, Indian men & women teams went on a goodwill tour of the Asian countries and played exhibition matches in Thailand, Japan, Malaysia etc. in order to popularize the game abroad. Federation cup competitions for men and women commenced in the same year. In the IXth Asian Games held at New Delhi, Kabaddi was included as a demonstration game. An open International tournament was conducted in Bombay in 1984. The game was included in the South Asian Federation Games held at Dacca for the first time in 1985. On the occasion of the tri-centenary celebrations of the city of Calcutta, an International Invitation Kabaddi Tournament was organised at Calcutta.

Kabaddi was included as one of the main disciplines in the XIth Asian Games, held at Beijing. This may be a landmark in the history of Kabaddi. It was a proud moment for India when it won the GOLD MEDAL and an unforgettable event for Kabaddi lovers all over the country who had strived to get the game into the international arena.

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Selected Training Performance Physical Fitness Components Association with High Jump Performance

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Abstract

This study is intended to investigate the standard performance physical fitness components to assess the relation with High Jump performance. The data were collected from 92 male Athletes of Inter-University level representation of various Universities in Andhra Pradesh were selected for this study. The age group of the subjects were ranged from 20 years to 25 years. The standard performance physical fitness components were Foot Reaction Ability (Nelson foot reaction), Explosive Strength (Sargent Vertical Jump), Dynamic Flexibility (Bridge Up), Dynamic Balance (Balance), and Coordination Ability (Soft ball put). The data was analyzed using the Pearson's Product Moment Correlation was set at 0.05 level of significance. The findings discovered that a significant relationship on High Jump performance ability indicate that there was significant relationship was Coefficient of Correlations Foot Reaction Ability (0.283), Explosive Strength (0.526), Dynamic Flexibility (0.268), Coordination Ability (0.295), Dynamic Balance (0.253) had positive and significant correlations with High Jump performance at 5% level. Other components of physical fitness, i.e. Hand Reaction (-0.104), Muscular Endurance (-0.14), Maximum Strength (-0.061), Speed Endurance (0.123), and Active Flexibility (0.169) have no significant correlation with playing High Jump performance. It suggests that Foot Reaction Ability (0.283), Explosive Strength (0.526), Dynamic Flexibility (0.268), Coordination Ability (0.295), Dynamic Balance (0.253) have inverse relations with effective performance in High Jump. **Key words:** Training, Fitness Components, High Jump, Performance.

Introduction

Any Sports and Games movement is the basic skills without momentum there is no physical activity in Sports/Games. Each Game and Sports there are numerous skills, techniques, tactics and strategies to perform a top performance in a specific competitions. The Sports of Athletics wish to win the any competitions required physical, physiological, anthropometrical and psychological variables. These variables mainly association with performance physical fitness or skill related physical fitness components. Performance physical fitness components required to get into effective performance in the specific competitions. In Athletics sports have categorized various like running, jumping and throwing events. In jumping there are two jumps one is horizontal jumps like long jump and triple jump and another jumps are vertical jumps like pole vault and high jump. In high jump, techniques like approach run, take off, clearance the bar and landing. In techniques there are numerous techniques executing in concurrent performance. Which type of techniques wants to execute the basic need is physical fitness. Especially in high jump event needs to maintain proper performance physical fitness components and concentrate training schedule which are selected physical fitness components to relation with high jump performance.

Methodology

Statement of the Problem

This Study examine the selected Performance Physical Fitness Components Relation with High Jump Performance.

Selection of Subjects

92 male High jump Athletes of Inter- University Level contribution of various Universities in Andhra Pradesh was chosen. The Age Category of Athletes were vary from 20 to 25 years. During the Academic Year 2015-2016 and 2016-17.

Hypotheses of the Study

As for the result, the selected performance physical fitness components would be significantly association with High jump Athletes performance in the competitions.

Collection of the Data and Tests

Table-1

| S.No | Physical Fitness Components | Test |
|------|-----------------------------|----------------------|
| 1 | Foot Reaction Ability | Nelson foot Reaction |
| 2 | Hand Reaction Ability | Nelson Hand Reaction |
| 3 | Dynamic Flexibility | Bridge Up |
| 4 | Dynamic Balance | Balance |
| 5 | Speed Endurance | 300 Meters Run |
| 6 | Muscular Endurance | Chin Ups |
| 7 | Coordination Ability | Softball Put |
| 8 | Explosive Strength | Sargent Jumping |
| 9 | Endurance | 600 Yard Dash |
| 10 | Maximum Strength | 1RM Test |

Criterion Measurements in Units

Softball Put : To measure nearest centimeter.

Walking on Balancing Beam : Best of three attempts the total time is noted in seconds.

300 Meters Run : To take time in nearest one tenth of the second

Nelson Hand Reaction : Numbers on the timer represent thousand of a second.

Nelson Foot Reaction : Numbers on the timer represent thousand of a second.

Bridge Up : To measure nearest centimeter

600 Yard Dash : To take in nearest one tenth of the second

Vertical Jump : To measure nearest centimeter.

Chin Ups : To measure number of chin ups in one minute

1RM Test : To measure one repetition maximum

Statistical Analysis and Results

Karl Pearson product moment coefficient of correlation is used to evaluate the data to assess the relation with selected physical fitness components among overall to take time in nearest one tenth of the second Athletes Performance.

Table-2

| S.No | Physical Fitness Components | Coefficient of Correlation 'r' |
|------|-----------------------------|--------------------------------|
| 1 | Explosive Strength | 0.526* |
| 2 | Hand reaction Ability | -0.104 |
| 3 | Coordination Ability | 0.295* |
| 4 | Active Flexibility | 0.169 |
| 5 | Dynamic Balance | 0.253* |
| 6 | Foot reaction Ability | 0.283* |
| 7 | Muscular Endurance | -0.14 |
| 8 | Endurance | 0.123 |
| 9 | Dynamic Flexibility | 0.263* |
| 10 | Maximum Strength | -0.061 |

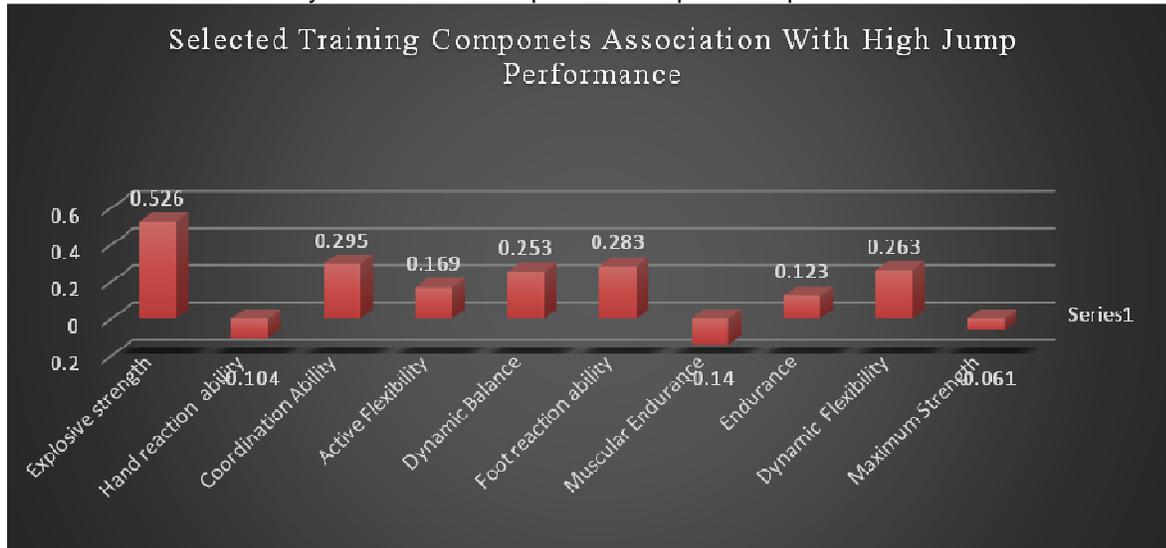
N=92, $r_{.05(80)} = 0.217$, *Significant at 0.05 level.

The above table shows that coefficient of correlation to Foot Reaction Ability(0.283), Explosive Strength(0.526), Dynamic Flexibility (0.268), Coordination Ability (0.295), Dynamic Balance (0.253) were significant positive correlation with High Jump Athletes Performance at 0.05 level of significance.

Remaining Performance components of Physical Fitness i.e. Hand Reaction (-0.104), Muscular Endurance (-0.14), Maximum Strength (-0.061), Endurance (0.123), and Active Flexibility (0.169) have no significant correlation with High Jump Athletes Performance.

Table -3

Selected Performance Physical Fitness Components Graphical Representation



Finally as for the result, this study advice to achieve top performance association with selected physical fitness components were Foot Reaction Ability(0.283), Explosive Strength(0.526), Dynamic Flexibility (0.268), Coordination Ability (0.295), and Dynamic balance (0.253) were significant positive correlation with High Jump Athletes performance at 0.05 level of significance.

Conclusions

As for the result, Physical Education Teachers, Physical Directors, Training Coaches, Personal Trainers and High Jump Athletes would concentrate and emphasis on performance Physical Fitness Components are Foot Reaction Ability(0.283), Explosive Strength(0.526), Dynamic Flexibility (0.268), Coordination Ability (0.295), and Dynamic balance (0.253) on their training program or training schedule for High Jump Athlete. It would maintain top performance and execute effective jumping in the particular competition.

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Competitive State Anxiety Inventory-2 (Csai-2): Evaluating The Athletes's Saigon Heat Team In The Asean Basketball League (2016 - 2017)

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Abstract:

Results of using the CSAI-2 scale showed that: In the ABL 2016 - 2017 season, the Saigon Heat athletes have a cognitive anxiety of 16.16 (± 4.47), confident (25.04, ± 4.82) lower than some athletes in other sports in the world. However, the results were higher in the 19.67 (± 4.33) somatic anxiety. This study hopes that this will be a useful reference for coaches and mentors in developing psychological training for future athletes. *Keywords: anxiety, CSAI-2, Sai Gon Heat, ABL 2016 - 2017.*

Introduction

Sport psychology is a field of great interest in recent years. Psychoanalytic methods help the coach distinguish the volitional qualities, the emotional states of mind - which are highly flexible components. Based on that, the coach predicts the level of confidence in the competition of the athlete as well as their actions in different situations [2]. Anxiety before a competition can be positive or negative. Positive anxiety is considered to be an important factor in the preparation of an athlete in raising the senses or ready to compete. Besides, negative anxiety, also known as stress before the competition is a process related to a negative perception of athletes - the haunt of failure weighs on them [3]. This state is tested by the results of the cognitive, somatic and confidence tests. There have been more than 20 published scales related to this topic. However, CSAI-2 (Martens, Burton, Vealey, Bump y Smith, 1990) is well known in the field of sport. In fact, many athletes have to stress and anxiety every day. It is difficult to come up with common solutions to this problem. Especially in case the coaches expect high on athlete's performance. psychological state before competitions of the athlete is very helpful to the coach, the athlete to adjust the emotion ready to play. This is very important for the athlete to reduce anxiety, tension before the competition and continue to build high confidence with every possibility.

Methodology

Scale

This scale is called the Competitive State Anxiety Inventory-2 (CSAI-2), a sport-specific state anxiety scale developed by Martens, Vealey, and Burton (1990). Then modified and used by other researchers (Arruza, Telletxea, Azurza, Amenabar y Balague, 2001; Telletxea, 2008) in studies and PhD thesis.

The scale divides anxiety into three components: cognitive anxiety, somatic anxiety, and a related component-self-confidence. Self-confidence tends to be the opposite of cognitive anxiety and is another important factor in managing stress. To score the CSAI-2, take all the scores for each item at face value with the exception of item 14, where you "reverse" the score. For example, if you circled 3, count that as 2 points (1 = 4; 2 = 3; 3 = 2; 4 = 1). Total your scores in the following manner: Cognitive state anxiety: Sum items 1, 4, 7, 10, 13, 16, 19, 22, and 25. Somatic state anxiety: Sum items 2, 5, 8, 11, 14, 17, 20, 23, 26. Self-confidence: Sum items 3, 6, 9, 12, 15, 18, 21, 24, and 27.

Your scores for each will range from 9 to 36, with 9 indicating low anxiety (confidence) and 36 indicating high anxiety confidence.

Sample

Includes 15 athlete's Saigon Heat team to participate in the The Asean Basketball League (ABL) (2016 - 2017).The survey was conducted throughout 15 matches with the consent of the coach, the athletes. The time taken to conduct the survey is approximately 45 minutes from the official team time.

Analytical methods

The research process uses the following methods: Methods of reading, analyzing and synthesizing materials; Methods of sociological investigation and statistical method.

Result

Cognitive state anxiety

Table 3.1: Results of interviews in component cognitive anxiety

| Items | LEVEL | | | | | | | |
|-------|------------|-------|----------|-------|------------|-------|--------------|-------|
| | Not at all | | Somewhat | | Moderately | | Very much so | |
| | Quantity | % | Quantity | % | Quantity | % | Quantity | % |
| 1 | 51 | 41.13 | 53 | 42.74 | 16 | 12.90 | 4 | 3.23 |
| 4 | 63 | 50.81 | 37 | 29.84 | 20 | 16.13 | 4 | 3.23 |
| 7 | 45 | 36.29 | 47 | 37.90 | 20 | 16.13 | 12 | 9.68 |
| 10 | 53 | 42.74 | 36 | 29.03 | 18 | 14.52 | 17 | 13.71 |
| 13 | 55 | 44.35 | 27 | 21.77 | 26 | 20.97 | 16 | 12.90 |
| 16 | 48 | 38.71 | 39 | 31.45 | 19 | 15.32 | 18 | 14.52 |
| 19 | 44 | 35.48 | 49 | 39.52 | 19 | 15.32 | 12 | 9.68 |
| 22 | 44 | 35.48 | 36 | 29.03 | 22 | 17.74 | 22 | 17.74 |
| 25 | 50 | 40.32 | 35 | 28.23 | 21 | 16.94 | 18 | 14.52 |
| Total | 453 | 40.59 | 359 | 32.17 | 181 | 16.22 | 123 | 11.02 |

Search results show that 40.59% of responses are selective. No worries for the content in question. Next position, the selection Somewhat 32.17%. Moderately level of anxiety was 16.22% and Very much so was 11.02%.

With a total score of 16.16 (± 4.47), can be seen that in the ABL 2016 - 2017 season, the Saigon Heat coaches still appear nervous, Are highly rated athletes with good workmanship and experience. However, this result is lower than the anxiety of British athletes (23.72, ± 5.49) in a Jones study (2001). At the same time, the level of anxiety experienced by Hockey players was low (21.87 ± 5.37) (Rajwant Singh, 2014).

Somatic state anxiety

Table 3.2: Results of interviews in component somatic anxiety

| Items | LEVEL | | | | | | | |
|-------|------------|-------|----------|-------|------------|-------|--------------|-------|
| | Not at all | | Somewhat | | Moderately | | Very much so | |
| | Quantity | % | Quantity | % | Quantity | % | Quantity | % |
| 2 | 59 | 47.58 | 42 | 33.87 | 20 | 16.13 | 3 | 2.42 |
| 5 | 44 | 35.48 | 51 | 41.13 | 23 | 18.55 | 6 | 4.84 |
| 8 | 56 | 45.16 | 45 | 36.29 | 13 | 10.48 | 10 | 8.06 |
| 11 | 65 | 52.42 | 35 | 28.23 | 16 | 12.90 | 8 | 6.45 |
| 14 | 22 | 17.74 | 23 | 18.55 | 51 | 41.13 | 28 | 22.58 |
| 17 | 45 | 36.29 | 40 | 32.26 | 20 | 16.13 | 19 | 15.32 |
| 20 | 67 | 54.03 | 19 | 15.32 | 24 | 19.35 | 14 | 11.29 |
| 23 | 40 | 32.26 | 38 | 30.65 | 24 | 19.35 | 22 | 17.74 |
| 26 | 38 | 30.65 | 33 | 26.61 | 26 | 20.97 | 27 | 21.77 |
| Total | 436 | 39.07 | 326 | 29.21 | 217 | 19.44 | 137 | 12.28 |

As many as 39.07% of respondents selected the level Not at all for the content mentioned. The next position, the degree of occasional anxiety is 29.21%. Content was answered moderately(19.4%) and very much so (12.28%).

In this season, the Heat of the Heat Saigon athletes are physically nervous at 19.67 (\pm 4.33). Compared with the results of research by Dr. Rajwant Singh - University of Sri Guru Nanak Dev Khalsa College (New Delhi), the athletes of Saigon Heat are more anxious than the Football players (14.73, \pm 4.07) and Hockey (19.07, \pm 4.22) (2014) [7].

Self-confidence

Table 3.3: Results of interviews in component Self-confidence

| Items | LEVEL | | | | | | | |
|-------|------------|-------|----------|-------|------------|-------|--------------|-------|
| | Not at all | | Somewhat | | Moderately | | Very much so | |
| | Quantity | % | Quantity | % | Quantity | % | Quantity | % |
| 3 | 15 | 12.10 | 23 | 18.55 | 54 | 43.55 | 32 | 25.81 |
| 6 | 18 | 14.52 | 26 | 20.97 | 53 | 42.74 | 27 | 21.77 |
| 9 | 11 | 8.87 | 25 | 20.16 | 39 | 31.45 | 49 | 39.52 |
| 12 | 24 | 19.35 | 20 | 16.13 | 41 | 33.06 | 39 | 31.45 |
| 15 | 15 | 12.10 | 26 | 20.97 | 34 | 27.42 | 49 | 39.52 |
| 18 | 23 | 18.55 | 18 | 14.52 | 43 | 34.68 | 40 | 32.26 |
| 21 | 27 | 21.77 | 29 | 23.39 | 42 | 33.87 | 26 | 20.97 |
| 24 | 34 | 27.42 | 27 | 21.77 | 35 | 28.23 | 28 | 22.58 |
| 27 | 20 | 16.13 | 21 | 16.94 | 33 | 26.61 | 50 | 40.32 |
| Total | 187 | 16.76 | 215 | 19.27 | 374 | 33.51 | 340 | 30.47 |

Selection of frequency and confidence a lot for the content in this component occupy a high position with 33.51% and 30.4%. The state is never confident and somewhat was 16.7% and 19.2%.

Although the confidence of the Saigon Heat (25.04, \pm 4.82) is higher than that of Futsal players in the 2016 Futsal Cup (24.7 / 36). However, it is still lower than the other athletes in the world such as Football (28.93, \pm 3.51) and Hockey (27.30, \pm 4.84) (Rajwant Singh, 2014).

Conclusion

In the ABL 2016 - 2017 season, Saigon Heat athletes have a higher level of anxiety and confidence than some other athletes in the world. However, the results were higher in the physical anxiety category. The negative effects of anxiety on performance have been demonstrated through previous and practical research. This research is expected to be a useful reference for coaches and mentors in developing psychological training for future athletes.

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Emotional training - sports performance

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Abstract :

Emotional intelligence is an important consideration in human resources planning, job profiling, recruitment interviewing and selection, management, customer relations, customer services in general, day to day life. When psychologists began to write and think about intelligence, they focused on cognitive aspects, such as memory and problem solving. However, there were researchers who recognized early that the non-cognitive aspects were also important. David Wechsler (1940) defined intelligence as "The aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment".

Introduction :

There are a lot of arguments about the definition of emotional intelligence, arguments that regard both terminology and operationalizations. The first published attempt toward a definition was made by Salovey and Mayer (1990) who defined emotional intelligence as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions." Despite this early definition, there has been confusion regarding the exact meaning of this construct. The definitions are so varied and the field is growing so rapidly, that researchers are constantly amending even their own definitions of the construct. Up to the present day, there are three main models of emotional intelligence:

Ability-based emotional intelligence models. Mixed models of emotional intelligence. Trait emotional intelligence model.

Concept of Performance :

The sports performance is defined as, "unity of execution and result of sports action or a complex sequence of sports actions measured or evaluated according to agreed and socially determined names" (Schnable, 1987). The actual performance is the psycho-socio-biological process. The nature of sports performance can be understood completely only by studying this process. The study of this process will field variable information about the structure of performance thereby giving valuable information having implications about training. Therefore it is of utmost importance to understand the sports performance as a unity of movement and its result.

Methodology

Objectives

The following are the objectives:

- To study the extent of Emotional Intelligence in sample sub – groups.
- To assess the influence of training on sports performance.
- To study the effect of Locus-of-Control on sports performance.
- To examine the gender differences in sports performance.

Hypotheses

The following are the hypotheses of the study:

There would be significant influence of training on the performance of the Sports in individual event and the Team Game. There would be significant difference in Emotional intelligence between sample sub-groups of independent variables. There would be effect of Locus-of-control on sports performance. There would be significant correlation between independent variables and sports performance.

Analysis Data :

The collected data were analyzed by using the following statistical techniques:

't' test to assess the significant difference between sample sub-groups.

Product moment 'r' to assess the co-relations between the variables.

Analysis of variance (ANOVA) to assess the influence of independent variables on dependent variable.

Table – 1: Influence of Independent Variables on Speed (100 mtrs.) Test:
(ANOVA) F-ratios (N=400)

| Main Effects | DF | SOS | MS | F |
|------------------------|----|----------|---------|--------|
| Education | 1 | 1649.77. | 1649.77 | 4.382* |
| Gender | 1 | 585.66 | 585.66 | 4.136* |
| Locus-of-Control | 1 | 1838.71 | 1838.71 | 4.426* |
| Emotional Intelligence | 1 | 1782.65 | 1782.65 | 4.382* |

Significant at 0.05 level.

All the F-ratio are significant.

There is independent effect of physiological factor like emotional intelligence and locus of control on sports performance in 100mts. events. The factor like Education and Gender have effected independently on sports performance or respondents

Table – 2: Influence of Independent Variables on Basket Ball:
(ANOVA) F-ratios (N=400)

| Main Effects | DF | SOS | MS | F |
|------------------------|----|---------|---------|----------|
| Education | 1 | 341.330 | 341.330 | 7.207** |
| Gender | 1 | 585.66 | 585.66 | 28.447** |
| Locus-of-Control | 1 | 111.049 | 111.049 | 9.921** |
| Emotional Intelligence | 1 | 149.201 | 149.201 | 9.994** |

* Significant at 0.05 level.

** Significant at 0.01 level.

All the F-ratio are significant.

There is independent effect of physiological factor like emotional intelligence and locus of control on sports performance in 100mts. events.

The factor like Education and Gender have effected independently on sports performance or respondents. The results clearly revealed that emotional intelligence is a significant influencing factor on sports performance. locus-of-control are also found to be contributing factors to sports performance. Results also revealed Education and Gender differences in sports performance.

Conclusions

The following are the major conclusions of the study:

There is a significant difference in the emotional intelligence between the under graduate and post graduate sub-groups: The post graduate students have significantly higher emotional intelligence than the under graduate students.

The players of both PG and UG degree have exhibited significantly higher emotional intelligence after training session than the before.

There is a significant difference in the emotional intelligence between pre and post- training condition in both male and female sub-groups.

The emotional intelligence of two groups of locus-of-control is significantly higher in the after training session than the before training session.

The sports person with the internal-locus-of-control has significantly higher emotional intelligence than those of external-locus-of-control in both the conditions of training.

There is a significant impact of training on sports performance of 100 meters speed as the post training scores in seconds are significantly lower than the pre-test condition in the sample of both PG and UG degree.

The under graduate players have taken significantly less time in 100 meters speed than the post graduate players.

There is a significant gender difference in 100 mtrs speed test in post-training.

The training has produced significantly higher sports performance in both male and female groups.

The sports performance of players with internal-locus-of-control is significantly higher in before and after training than those with external-locus-of-control.

The players of two groups of locus-of-control have significantly higher performance in 100 mtrs speed test when the training was given.

There is a significant increase in Basket Ball performance of both male and female when the training was given.

The Basket Ball performance of the players of two categories of locus-of-control is significantly higher after the training.

There are significant differences are Basket Ball performance between internal and external-locus-of-control of players: Internals have higher performance than externals.

There is significant influence of education on 100 mtrs speed test: The UG students are significantly higher than the PG students in 100 mtrs speed.

There is significant influence of gender on 100 mtrs speed test.

There is influence of locus-of-control on 100 mtrs speed performance of the sample.

Emotional has significant influences the speed performance of the players in 100mts. events

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Relationships Between Physiological Function And Performance Of Vietnam Elite Junior Female Swimmers

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Abstract:

To identify the relationship of the speed corresponding to anaerobic threshold using the D-max method for blood lactate parameters determined in an incremental swimming test and the changing of cardiopulmonary after a year training period to compare this information with freestyle performance. **Methods:** Six national junior female swimmers (mean \pm SD: age 15.33 \pm 1.63 years, body height 158.8 \pm 4 cm, body weight 50.4 \pm 3.5 kg) performed the following protocols: 5 x 200m incremental test to determine the speed corresponding to the D-max point on the blood lactate (VD-max), Heart rate at D-max (H@Dmax), Max Lactate (MaxLa) and these variance cardiopulmonary function: Ruffier Dickson Index (RufDick), Forced Vital Capacity (FVC), Heart rate at rest (H@rest) were then undertaken on separate days in a randomized order. **Results:** There were high correlations between freestyle performance and VDmax ($r = -0.855$ to -0.898); MaxLa ($r = -0.823$ to -0.882); FVC ($r = -0.793$ to -0.9); H@rest ($r = 0.773$ to 0.896). There were low correlations between freestyle performance and H@Dmax ($r = 0.47$ to 0.65); RufDick ($r = 0.609$ to 0.656). **Conclusions:** VDmax, MaxLa, FVC suggest good validity of these variables to predict 100m, 200m, 400m freestyle performance. **Key words:** D-max, blood Lactate, Ruffier Dickson Index, Forced Vital Capacity, freestyle performance, physiological function

Introduction

According to Ogawa (1958), vital capacity and maximum breathing capacity of the swimming athletes were remarkably large when compared with young men who were non-athletes, their vital capacity was larger than that of other athletes. In lung volume of the swimming athletes, total volume and vital capacity were large and ratio of residual volume was low. The increase of vital capacity was caused by the increase of inspiratory reserve volume. This is considered as the adaptation of respiratory phase to swimming. In step up test, cardiopulmonary function of the swimming athletes showed very suitable change for exercise. This is considered to be the result of the increase of adaptive power of cardiopulmonary function to exercise. Assessing cardiorespiratory endurance is most important components of physical and level performance. Cardiorespiratory testing is long used as a simple method to access cardiac adaptability to exercise. This test can help tracing a poor cardiovascular response to effort.

Blood lactate accumulation during incremental exercise tests has commonly been used to evaluate the effects of training, to set training intensities, and to predict performance. Wakayoshi (1993) and Czuba (2009), some indices of aerobic capacity, such as individual anaerobic threshold, anaerobic threshold, onset blood lactate accumulation, critical speed, and D-max, have been used as tools for estimating Work load at maximum lactate steady state (MLSSWORKLOAD). Most of these indices are based on lactate response to incremental step tests, which provide an exponential curve of blood lactate concentration—[La]—versus work rate. The onset of blood lactate accumulation has shown good validity in predicting MLSSWORKLOAD in different exercise modes or even performance in competition.

Further studies expanded upon determine lactate curve and performance of swimming (Sokolova B., 1998), Smith J., 2002), Cheng B., 1992, Maglischo W., 2003, Anderson, 2008). The purpose of this study

was to evaluate the correlations of physiology functions and cardiopulmonary variables with performance (100m, 200m and 400m freestyle) of Vietnam elite junior female swimmers.

Methods:

Six females in national junior swimmers (mean \pm SD: age 15.33 ± 1.63 years, height 158.8 ± 4 cm, weight 50.4 ± 3.5 kg) volunteered for and gave written informed consent to participate in this study, which was approved by Ho Chi Minh city Sports University and Ho Chi Minh city National Sport Training Center. These swimmers had average 5 to 6 years experienced. The participants were instructed to refrain from intense training sessions at least 24 hours before the experimental sessions. They were directed to report to the swimming pool in a rested state and to refrain from using caffeine, drugs, and alcohol for 24 hours before testing. Following to Tanner and Gore (2013), the 5 x 200m protocol were used to identify the speed corresponding to anaerobic threshold using the D-max method, Maximum Lactate, Heart rate at D-max for blood lactate parameters. The other tests: Ruffier Dickson (RufDick), Forced Vital Capacity, Heart rate at rest were then undertaken on separate days in a randomized order. Testing occurred at the same time of the day (± 2 h) to minimize the effect of circadian variation on performance.

Statistical Analysis

The speed corresponding to anaerobic threshold using the D-max method was calculated by Lactate – E Software from National University of Ireland Galway (Newell, 2007). The values are expressed as mean \pm SD. The Pearson correlation coefficient was used to establish the correlations between the variables and the 100m, 200m, 400m freestyle performance with the significance index of $p < 0.05$; $p < 0.01$. SPSS 21 software was used to statistical analysis.

Result

Table 1. Physiological variables and performance characteristics of the subjects

| Variables | $\bar{X} \pm SD$ |
|-------------------|------------------|
| VD-max (m/s) | 1.32 \pm 0.13 |
| H@Dmax (beat/min) | 164 \pm 4.2 |
| MaxLa (mmol/L) | 14.02 \pm 1.96 |
| RufDick | 3.47 \pm 1.64 |
| FVC (L) | 3.75 \pm 0.36 |
| H@rest (beat/min) | 56 \pm 6.31 |

Table 2: The correlations between the variables and the 100m, 200m, 400m freestyle performance.

| r | | VD-max (m/s) | H@Dmax (beat/min) | MaxLa (mmol/L) | RufDick | FVC (L) | H@rest (beat/min) |
|-------------|------|--------------|-------------------|----------------|---------|---------|-------------------|
| Performance | 100m | -0.855* | 0.47 | -0.823* | 0.656 | -0.793 | 0.773 |
| | 200m | -0.898* | 0.53 | -0.848* | 0.609 | -0.815* | 0.825* |
| | 400m | -0.897* | 0.65 | -0.882** | 0.648 | -0.900* | 0.896* |

The result showed that: There were strong correlations between freestyle performance and VD-max ($r = -0.855$ to -0.898), significantly different $p < 0.05$; MaxLa ($r = -0.823$ to -0.882) were significantly different $p < 0.05$; FVC ($r = -0.793$ to -0.9) were significantly different $p < 0.05$; H@rest (0.773 to 0.896) were significantly different $P < 0.05$. There were moderate correlations between freestyle performance and H@Dmax ($r = 0.47$ to 0.65); RufDick ($r = 0.609$ to 0.656).

Discussion

The main finding of this study was that correlations coefficient between physiological function by testing 5x200m incremental, cardiorespiratory function and the 100m, 200m, 400m freestyle performance. The speed corresponding to anaerobic threshold was used by the D-max method.

According to Oliveira (2012), from the theoretical viewpoint, D-max is an arbitrary point on the regression curve that is used to characterize blood lactate kinetics in response to incremental exercise. The D-max method allows detection of a threshold point at all times by definition and has presented high test-retest reliability. The D-max method was used to overcome the shortcomings of visual or predetermined fixed-value threshold determination, such as subjectivity and lack of individuality. A study of Oliveira (2012) showed that the high correlation between speed 400m performance and speed corresponding D-max threshold ($r=0.9$). Besides, a study of Manoel (2006) showed that the high corresponding between VD-max and speed 400m performance. The result of this study is consistent with these recent studies.

A study of Olbrecht. J (2000) showed that the best swimmers (European and World class swimmers) reach the highest lactate readings even over long distances. Furthermore, sprinter reach higher lactate reading than the middle and longer distance swimmers in shorter events.

Many studies have used the heart rate at anaerobic threshold (heart rate deflection points - HRDP) during incremental exercise tests, because of their strong correlation with the anaerobic threshold. Some research showed that the HRDP coincides with the intensity at the gas exchange anaerobic threshold during graded exercise. But there is a lack of agreement about how best to obtain HRDP and what it represents physiologically.

The Ruffier - Dickson test is long used as a simple method to access cardiac adaptability to exercise. This test can help tracing a poor cardiovascular response to effort. However, comparing it with other measures also commonly employed, the accuracy and limitation of this effort test has not been well clarified, particularly if it can provide a convenient mean of supervision physical fitness. This parameter was widely used in France to access physical fitness of athletes. A study of Oliveira (2010) show that there was a good correlation ($r=-0.586$, $p=0.003$) between the Ruffier-Dickson and the endurance performance in study group.

Short distances and middle distances in swimming required the extremely activities of cardiopulmonary function. Many research showed that more maximum minute ventilation more aerobic capacity and maintain under high intensity activity. Sanchez (2015) was researched on 9 female swimmers (16.9 ± 3.2 aged), the research showed that the high correlation between 100 m front-crawl trial and Force vital capacity ($r = -0.72$, were significantly different $P<0.05$).

Cardiovascular response to endurance training is always considered an indispensable indicator in assessing a swimmer's response to a training process. Thus, Heart rate at rest and cardiovascular recovery during exercise have always been considered by scientists to be a tool for assessing the fitness level of an athlete. There have been not much studies showing the relationship of heart rate at rest to performance. However, Cornforth (2014) has shown a strong correlation ($r = 0.92$) between percentage of heart rate recovery after 12 weeks of training with the professional Australian national team. According to Dennis & Noakes (1988), an increase in the percentage of cardiovascular recovery will help to increase the level of fitness and ability to training adaptation.

Conclusion

Results of the study showed that VD-max (m /s), Max lactate (mmol/L), Forced vital Capacity (L) and Heart rate at rest (bpm) have correlation from strong to very strong (Sig. $<0.05 - 0.001$) with 100 m, 200 m, 400 m freestyle performance. Heart rates at D-max (bpm) and Ruffier - Dickson have a moderate correlation with the 100m, 200m, 400m freestyle performance of elite Vietnam junior female swimmers. These variables should be used to evaluate the effects of training and to predict performance for junior female swimmers.

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The Bhuddist: Concept Of Impermanence

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Introduction:

Early Buddhism dealt with the problem of impermanence in a very rationale manner. This concept is known as anicca in Buddhism, according to which, impermanence is an undeniable and inescapable fact of human existence from which nothing that belongs to this earth is ever free. Buddhism declares that there are five processes on which no human being has control and which none can ever change. These five processes are namely, the process of growing old, of not falling sick, of dying, of decay of things that are perishable and of the passing away of that which is liable to pass. Buddhism however suggests that escape from these is possible and it's through Nirvana. Hinduism also believes in the impermanent nature of life. But it deals with this problem differently. According to Hinduism, impermanence can be overcome by locating and uniting with the center of permanence that exists within oneself. This center is the Soul or the self that is immortal, permanent and ever stable.

According to Hinduism, Atman is the fundamental truth that exists in every being, while at the microcosmic level it is Brahman who is the fundamental and supreme truth of all existence. He who realizes Atman verily becomes Brahman and attains immortality. The Buddha differed radically with this most fundamental concept of Hinduism and in line with his preaching the early Buddhists did not believe in the existence of a permanent and fixed reality which could be referred to as either God or soul. According to them what was apparent and verifiable about our existence was the continuous change it undergoes. Thus early Buddhism declares that in this world there is nothing that is fixed and permanent. Everything is subject to change and alteration. "Decay is inherent in all component things," declared the Buddha and his followers accepted that existence was a flux, and a continuous becoming.

Human existence, in the Buddha's view, is nothing more than a composite of five aggregates (khandas):

Physical forms (rupa)

Feelings or sensations (vedana)

Ideations (sanna)

Mental formations or dispositions (sankhara)

Consciousness (vinnana)

These khandas come together at birth to form a human person. A person is a "self" in that he or she is a true subject of moral action and karmic accumulation, but not in the sense that he or she has an enduring or unchanging soul.

According to the teachings of the Buddha, life is comparable to a river. It is a progressive moment, a successive series of different moments, joining together to give the impression of one continuous flow. It moves from cause to cause, effect to effect, one point to another, one state of existence to another, giving an outward impression that it is one continuous and unified movement, where as in reality it is not. The river of yesterday is not the same as the river of today. The river of this moment is not going to be the same as the river of the next moment. So does life. It changes continuously, becomes something or the other from moment to moment.

Take for example the life of an individual. It is a fallacy to believe that a person would remain the same person during his entire life time. He changes every moment. He actually lives and dies but for a moment, or lives and dies moment by moment, as each moment leads to the next. A person is what he is in the context of the time in which he exists. It is an illusion to believe that the person you have seen just now is the same as the person you are just now seeing or the person whom you are seeing now will be the same as the person you will see after a few moments.

Even from a scientific point of view this is true. We know cell divisions take place in each living being continuously. Old cells in our bodies die and yield place continuously to the new ones that are forming. Like the waves in a sea, every moment, many thoughts arise and die in each individual. Psychologically and physically he is never the same all the time. Technically speaking, no individual is ever composed of the same amount of energy. Mental stuff and cellular material all the time. He is subject to change and the change is a continuous movement.

Impermanence and change are thus the undeniable truths of our existence. What is real is the existing moment, the present that is a product of the past, or a result of the previous causes and actions. Because of ignorance, an ordinary mind conceives them all to be part of one continuous reality. But in truth they are not.

The various stages in the life of a man, the childhood, the adulthood, the old age are not the same at any given time. The child is not the same when he grows up and becomes a young man, nor when the latter turns into an old man. The seed is not the tree, though it produces the tree, and the fruit is also not the tree, though it is produced by the tree.

Conclusion:

The concept of impermanence and continuous becoming is central to early Buddhist teachings. It is by becoming aware of it, by observing it and by understanding it, one can find a suitable remedy for the sorrow of human life and achieve liberation from the process of anicca or impermanence. The Buddha was characteristically resistant to dwelling on such speculative matters, and early opponents of Buddhism were quick to point out this apparent vulnerability in Buddhist thought.

Buddhists explain the difficulty using the analogy of fire: When one candle is used to light another, the new flame is not the same as the old flame, and yet the first flame directly causes the second. In the same way, one human life, with its particular accumulation of karma, gives rise to the next life, even though no permanent soul passes from one to the other.

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Role of Diet for a Professional Mountain Bike Cyclist

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Introduction :-

Diet is the science that deals with food and its use by the body. We like all other living things, need food to live. Food supplies the energy for every action we undertake from eating banana to running a race. Food also provides material that our body needs to build up and repair its tissues and to regulate the functions of its organs and systems. The chemicals in food, which our body needs, are called nutrients. Food and beverages are composed of six nutrients that are vital to the human body for producing energy, contributing to the growth and development of tissues, regulating body processes and preventing degenerative diseases. The six nutrients are classified as essential nutrients. They are carbohydrates, proteins, fats, vitamins, minerals and water. The body requires these nutrients to function properly however the body is unable to endogenously manufacture them in the quantities needed on a daily basis.

Mountain Bike Cycling :-

The mountain bike cycling race route consists of uphill, downhill, climbs, plantation and forest, river crossing, uneven road covered also. The distance of the event may be longer and stages also. Mountain bike cycling being a highly technical and equipment based sports is getting very popular among the gen next. A proper diet, training methodology is bound to bring good and instant result in a high performance effort.

The Diet :-

The field of sports diet requires a command of general diet and exercise science, an understanding of their interrelationship and the knowledge of how to practically apply sports diet concepts. This text provides a review of the current sports diet research, established dietary recommendations for athletes and guidance on how to develop individualized diet plans for athletes participating in various sports. Professional cyclists follow a diet plan to maximize their performance. The diet plan provides essential diet to fuel muscles, repair muscle and tissue damage along with replacing lost electrolytes and other nutrients. You can adopt some of the basic diet strategies used by professional cyclists to improve your performance, but you should consult a doctor or nutritionist before making any significant changes to your diet.

Step :-1.

Consume a balance of macronutrients from carbohydrates, fat and protein to support healthful body functions, cycling performance and muscle recovery. As a general rule, professional cyclists increase their carbohydrate intake as their training intensity increases. For example, you can increase total carbohydrate intake from 55 percent to 60 percent of total calories to about 70 percent.

Step :-2.

Choose the right types of foods to supply essential nutrients, vitamins and minerals. Each professional cyclist makes their own food choices, but some food is used by most professional cyclists. These foods include whole grains, fruits and vegetables for carbohydrates, fish, chicken and lean meats for protein.

Step :-3.

Eat a meal or snack before every training workout or competition. Professional cyclists consume whole, natural foods without refined sugar, saturated fats or alcohol. The pre-workout meal or snack should leave you satisfied but not stuffed.

Step :-4.

Stay hydrated and fueled while on the bike. Endurance rides require additional supplementation to provide energy and fuel for your muscles. A general rule is to consume about 500 to 750 milliliters of fluid per hour along with energy gels, granola bars, sandwiches and other food sources for calories.

Step :-5.

Consume recovery foods immediately after dismounting the bike. The post workout nutrition improves your recovery and muscle development so you can follow your training schedule. Most recovery foods are in liquid form containing a combination of carbohydrates and protein. The carbohydrates replenish muscle glycogen for energy while protein provides amino acids for muscle repair and development.

Step :-6.

Increase your carbohydrate intake two to three days before a cycling competition. This pattern of eating is commonly referred to as carbohydrate loading and is designed to replenish glycogen stores for optimal energy and performance during the event. Carbohydrate loading involves eating additional carbohydrate sources such as pasta, whole grains and fruits while reducing protein and fat intake.

Step :-7.

Consume enough calories per day to support your physical activity and training intensity. For example, professional cyclists burn up to 5,000 calories during a single stage of a multi stage cycling event. As a result, it takes a significant amount of calories to support body functions, recovery and performance.

Conclusion :-

Diet is of importance to athletes, the key to achieving an optimal sports diet in relationship to peak performance and good health is balance. Athletes must fuel their bodies with the appropriate nutritional foods to meet their energy requirements in competition, training and recovery. If these nutritional needs are not met, there is an increased risk of poor performance and health issues. The use of a nutritional supplement within established guidelines is safe, effective and ethical. Many studies have shown the effectiveness of creating monohydrate supplementation in improving anaerobic capacity strength and lean body mass in conjunction with training, but still there is sports specific variation in the food intake and practices indicating the strong influence on coaches and peers. It is vital to educate the sportsmen about the dietary pattern. Failure to consume right diet during competition due to false belief in markets and constant fear of eating prohibited foods may hamper performance. Finally the future of nutritional supplement looks bright in regard to the areas of transport mechanism, improved muscle retention as well as treatment of numerous clinical maladies through supplementations.

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A Study Of Attitude Of Parents Towards SPAT In Haryana

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Abstract

The paper is an attempt to have an insight into the attitude of SPAT finalist' parents of Rohtak district of Haryana. To attain the objectives of the study, a sample of 50 students' parents was selected from the Rohtak district and the data were collected with the help of a questionnaire. The investigators found that most of the respondents' interest and attitude toward SPAT is favourable; students received their parents' encouragement and cooperation; most of the respondents are aware towards SPAT.

Key Words: Attitude, SPAT, parents of finalist students, Rohtak.

INTRODUCTION

For increased participation in sports, particularly in schools the government of Haryana proudly launched SPAT. India is to raise health standard through higher physical activity, deliver social Cohesion theory increased interactions among different groups in a friendly setting, help build a culture of innovation, commitment and competitiveness through sports and put readjustment demand on the economy to create sufficient career opportunities around athletic aptitude. There is no doubt Haryana state has a vibrant sporting culture and to develop the sporting culture at grassroots level Haryana again is the first state to implement a talent hunt programme - Sports and Physical Aptitude Test to choose promising players through a scientific approach. With the help of this critical study, we can find out the drawback of indifferent attitude of students and parents towards SPAT and how it can be developed or removed sports awareness. There is need to aware rural area people about SPAT in order to promote the sports at village level especially in schools.

OBJECTIVES

To study the attitude and interest towards SPAT among parents of students.

To find out exact reasons, the lack of interest towards SPAT.

RESEARCH METHODOLOGY

SAMPLE

The sample of present study consists of 50 SPAT finalist's parents of Rohtak district.

DATA COLLECTION AND TOOL USED

In order to achieve the objective of the study the investigator would use a self-prepared questionnaire and percentage.

Results And Discussions

Table: 1:Responses of the Parent towards SPAT

| Sr. No. | Particulars | Yes | No | Total | Yes (%) | No (%) |
|---------|-----------------------------------------------------------------------------------|-----|----|-------|---------|--------|
| 1 | Have you ever actively participated in sports? | 32 | 18 | 50 | 64 | 36 |
| 2 | Do you think sports is a better Career for your Child other than? | 34 | 16 | 50 | 68 | 32 |
| 3 | Do you think Haryana government is serious in developing sports culture in state? | 41 | 9 | 50 | 82 | 18 |
| 4 | Do you think SPAT will prove fruitful scheme for sports person? | 42 | 8 | 50 | 84 | 16 |
| 5 | Do you think SPAT will be very effective scheme to search talent in rural area? | 46 | 4 | 50 | 92 | 8 |

Source: Primary data collected.

Table 1 shows that 64 percent respondents actively participated in sports at any level, While 36 percent never participate in their life at any level. The survey shows that most of the respondents are aware towards sports and personality belonging to games and sports; 68 percent parents respondents think sports is a better career for their child. Majority of respondents 82 per cent accept that Haryana government is serious in developing sport culture and few respondent 18 per cent not accept it. It is concluded that to promote the sports in Haryana state government provide all grassroots level facilities to make Haryana a sports hub like- job security after winning an international competition. Majority of the parents respondents 92 per cent consider that SPAT will be very effective scheme to search talent in rural area while 8 per cent denying.

Table: 2:Responses of the Parent towards SPAT

| Sr. No. | Particulars | Yes | No | Total | Yes (%) | No (%) |
|---------|---------------------------------------------------------------------------------------------|-----|----|-------|---------|--------|
| 1 | Does long training session of SPAT program adversely affected yours child study? | 28 | 22 | 50 | 56 | 44 |
| 2 | Does SPAT fulfill all essential sports related requirement of your child? | 30 | 20 | 50 | 60 | 40 |
| 3 | Are you satisfied with the amount providing to the player as scholarship? | 22 | 28 | 50 | 44 | 56 |
| 4 | Do you want a special training for your child in their school before participation in SPAT? | 48 | 2 | 50 | 96 | 4 |
| 5 | Are you satisfied with the selection procedure adopted in SPAT? | 20 | 30 | 50 | 40 | 60 |

Source: Primary data collected.

It is clear from the table 2 on the behalf of the performance enhancing of their child most of parents accept the potentiality of coaches/ trainers; 56 per cent respondent feel that long training session of SPAT program adversely affected their child study while 44 per cent respondents don't feel like that it can be observed from the table that parents think that due to the long training session their children cannot concentrate and they can't give sufficient time to their study; 60 per cent respondents accept that SPAT fulfill all essential sports related requirement while 40 per cent respondents don't accept it. It is easy to say according to the table mostly parents are satisfied with the essential sports related requirement fulfill by SPAT programme; 44 per cent respondents are satisfied with the amount provide to the player as scholarship while most of 56 per cent respondents are not satisfied. Majority of respondent's 96 per cent want a special training for their children in their school before participation in SPAT only 4 per cent does not want this type of provision. It is clear that parents want a pre training to prepare their children to score more in SPAT and to perform better; 40 per cent respondents are satisfied with the selection procedure adopted in SPAT while 60 per cent respondents are not satisfied.

CONCLUSION

It is observed that most of the respondents' interest and attitude toward SPAT is favourable. Students received their parents' encouragement and cooperation. Most of the respondents are aware towards SPAT. To promote the sports in Haryana, especially at village level the state government launched SPAT. The SPAT scheme is an effective talent hunt programme which raises the level of sports in rural area especially at school level. There is a lot of difference in facts and fiction, because the improper implication of scheme is spoiling the image of SPAT among people. It is evident from sociological point of view that the encouragement and co-operation received from coaches as well as parents. After the school they have no separate play grounds and they are not permitted by their parents. Due to the less number of female coaches and physical education teacher there is a lack of role model to give encouragement and increase participation of girl student in SPAT. The trainer/coach plays a vital role in encouraging more participation in sports activity.

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Common Injuries And Preventions In Volley Ball

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Abstract

Every Sport has injury problems. Some of them are "overuse", types of injuries such as those seen in joggers' ankles, lower legs, and knees, while others are acute injuries. In volleyball, finger injuries have gone down over the years due to more passing with the forearms, but ankle sprains have increased because people are jumping higher and more often in spiking and blocking. Passing, digging, and setting are quite safe, but blocking and spiking increase the risk of hand, shoulder, knee, and ankle problems. Scientific studies of injuries do not report a consistent incidence of problems. Generally speaking, volleyball is a very safe game, but as spiking, blocking, and diving for digs have become more commonplace, injury rates have risen over the years due to this more aggressive play. Key Words: *Injuries, Preventions, Volleyball.*

Introduction

Every Sport has injury problems. Some of them are "overuse", types of injuries such as those seen in joggers' ankles, lower legs, and knees, while others are acute injuries such as when a basketball player sprains an ankle. In volleyball, finger injuries have gone down over the years due to more passing with the forearms, but ankle sprains have increased because people are jumping higher and more often in spiking and blocking. And allowing the jumpers to land on or over the center line has increased these injuries even more.

Passing, digging, and setting are quite safe, but blocking and spiking increase the risk of hand, shoulder, knee, and ankle problems. Over 55 percent of all injuries are due to jumping or landing. As you would expect, playing on a soft surface such as sand greatly reduces the number of injuries. In fact, there are 75 percent fewer injuries on sand than on a hard court.

We are finding more overuse injuries: Jumper's knee, cruciate ligament tears inside the knee, inflamed tendons, the thigh and leg bones, shoulder problems, the stretching of muscles, the rotator cuff muscles. The most common types of acute injuries are sprained ankles or wrists, jammed fingers, or twisted knees. Hand injuries, sprained ankles, injuries to the ankles and knees, the lower extremities.

When players are older; older women have more overuse injuries, while older men have more acute injuries. Elite players have twice the injury rate of less, accomplished players. The highest level of injury risk is for young players during their growth spurt. If the Player has had injuries earlier from volleyball or another sport, there is a risk of re-injury. Poor hitting or jumping and landing technique results in an increased risk of injury. Injuries can occur if there is an imbalance of muscle strength.

When Injuries occur:

Scientific studies of injuries do not report a consistent incidence of problems because some studies are done with elite players in tournaments, while others are done in physical education classes. But we can surmise from the studies that there are more injuries at the beginning of a season than later - due to poor condition and poor skills; and that there are more injuries as the intensity of the game increases, such as in tournaments. There is a higher rate of injuries during game increases, such as in tournaments. There is a higher rate of injuries during games than during practice time. Generally speaking, volleyball is a very safe game, but as spiking, blocking, and diving for digs have become more commonplace, injury rates have risen over the years due to this more aggressive play.

Types of Volley ball Injuries:-

With advanced and elite volleyball players, we are finding more overuse injuries. The continual jumping and landing of hitters / stickers and blockers can result in "jumper's knee" (an inflammation of the tendon that holds the kneecap), as well as cruciate ligament tears inside the knee and inflamed tendons where the muscles used in jumping are attached to the thigh and leg bones. About 45 percent of elite players have complained of knee injuries from overuse.

Stickers / Hitters are more likely to develop shoulder problems both from the stretching of muscles in the upper back (the infra-spinatus muscle) and from the force developed in the rotator cuff muscles in the spike and the serve. For most players, acute injuries are more common. The most common types of acute injuries are sprained ankles or wrists, jammed fingers, or twisted knees. Hand injuries account for about half of the reported injuries in school classes. Sprained ankles are second, with an incidence of about 25 percent. At the higher levels of play, injuries to the ankles and knees are more likely, with half of all injuries being to the lower extremities. Some studies show that the ankles are more often injured, while others show that knees are more often the problem.

Head and upper - body problems are not a major type of volleyball injury. However, a broken nose or extreme twists of the neck (cervical vertebrae) or lower back (Lumbar vertebrae) do occur, less than 15 percent of all volley ball injuries are to the trunk and head. Arm, shoulder and hand injuries make up about 35 percent of volleyball injuries.

As mentioned, the overhand actions of serving and hitting can cause some problems to the tendons and muscles of the shoulder joint. Elbows don't seem to be a problem, but a few cases of forearm problems have been reported. The wrist and hand are often problems , however, there are eight bones in the wrist with five hand bones attaching to them, as well as two thumb bones and three in each finger giving, a large number of places where a fracture or a sprain (overstretching / rupturing of the ligaments that hold one bone to another) can occur. About 25 percent of injuries are to the fingers, with another 25 percent to the thumbs, Blocking is the major cause of finger and thumb injuries.

Research in Italy at all levels of play has indicated that the floater serve and spike both stretch nerves that may eventually become painful. A major problem in both Techniques is a weakness in the muscles that rotate the upper arm in the shoulder. These muscles can be strengthened by doing the rotator cuff exercises. Leg, ankle, and foot injuries are common in any sport involving running and jumping. Basketball and Volley ball players as well as high and long jumpers are prone to the same types of knee, lower leg, and ankle overuse injuries.

However, acute injuries in volley ball can also occur in these areas when the knee is twisted or hit from the side or the ankle is twisted during landing. As you might accept, blocking and spiking are the activities during which most lower - leg acute injuries occur.

Risk of Injuries

There are gender differences in the occurrence of injuries. Male players are more likely to acquire "jumper's knee" (an injury to the patellar tendon) and shoulder injuries, while female players are more at risk for fractures and knee ligament injuries. Even though beach volleyball is generally safer than indoor play, sand players are more susceptible to Achilles tendon problems.

Prevention and Safety Measures to reduce injuries

Wear pads to protect your knees or elbows, wear ankle braces to prevent ankle sprains. Do rotator cuff exercises to reduce shoulder problems from serving and hitting. Do leg exercises to condition the leg muscles for the maximum efforts. Consider the use of orthotics and / or cushioned heel cups if you have foot problems. Use ankle stabilizers to reduce ankle sprains. Play on dry wooden floors. Injuries can often be prevented by using proper techniques and by effective strengthening of the muscles. Protective pads, orthotics and braces, ankle stabilizers, can greatly reduce the risk of injury.

The risk of injuries in volley ball is increased in the following conditions

When players are older; older women have more overuse injuries, while older men have more acute injuries.

Elite players have twice the injury rate of less, accomplished players.

The highest level of injury risk is for young players during their growth spurt.

If the Player has had injuries earlier from volley ball or another sport, there is a risk of re-injury.

Poor hitting or jumping and landing technique results in an increased risk of injury.

Injuries can occur if there is an imbalance of muscle strength; for example, if the muscles in the front of the thigh (quadriceps) are much stronger than those in the back of the thighs (hamstrings).

If the level of competition is higher; the pressure can result in injuries.

It is more dangerous to play on concrete than on wood or linoleum floors.
Playing on different surfaces (such as concrete or wood) increase the injury risk over playing on just one surface regularly.

Prevention and Safety Measures to reduce injuries:-

Wear pads to protect your knees or elbows if they are in danger of injuries from the position you play.

Wear ankle braces to prevent ankle sprains.

Do rotator cuff exercises to reduce shoulder problems from serving and hitting.

Do leg exercises to condition the leg muscles for the maximum efforts they must accomplish during practices and games.

Consider the use of orthotics and / or cushioned heel cups if you have foot problems

Use ankle stabilizers to reduce ankle sprains.

Use knee pads to reduce knee injuries from hitting the floor

Play on dry wooden floors, (High - Friction or non - skid surfaces such as concrete increase risk as do low - friction or slippery or wet surfaces).

Strengthen the muscles of the legs and shoulders through the use of resistance exercises.

Injuries can often be prevented by using proper techniques and by effective strengthening of the muscles.

Protective pads, orthotics and braces, particularly ankle stabilizers, can greatly reduce the risk of injury.

General strength programme for fitness and specific programme for volley ball exercise.

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Comparison of Self Confidence among Kabbadi and Kho Kho Players of Gulbarga University

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Abstract:

Kabaddi and Kho Kho are the Indian Sports. Kabaddi is a contact sport that originated in Ancient India. Modern Kabaddi is therefore a synthesis of the game played in various forms under different names. Kabaddi received international exposure during the 1936 Berlin Olympics, demonstrated by India. The game was introduced in the Indian National Games at Calcutta in 1938. In 1950 the All India Kabaddi Federation came into existence and framed the rules. The game was included for the first time in the Asian Games in Beijing in 1990 where seven teams took part. Kho kho is a tag sport played by teams of twelve players, of which nine enter the field, who try to avoid being touched by members of the opposing team. It is one of the two most popular traditional tag games of the Indian subcontinent, the other being kabaddi. Self confidence in sports relies primarily on the athletes ability to believe he can win and that can be successful in his efforts. **Purpose:** The Purpose of the study is to find out the self confidence among Kabbadi and Kho Kho Players of Gulbarga University. **Methodology:** The sample for the present study consists of 50 Male Kabbadi Players and 50 Kho Kho Players of Gulbarga. Dr.S.J.Quadri Self Confidence Inventory is used to assess the Self Confidence. **Results:** The Results of the Study shows that Kho Kho Players are having more confidence than Kabbadi Players. **Conclusions:** It is concluded that Kho Kho Players are having more self confidence than Kabbadi Players. Hence it is recommended that Psychological Training must be included in the Coaching Program in sports for development of Self Confidence among sports persons. Self confidence is the main psychological variable for key to success in sports and games. **Key Words:** Self confidence, Psychological Training, Kabbadi and Kho Kho etc.

Introduction:

Kabaddi and Kho Kho are the Indian Sports. Kabaddi is a contact sport that originated in Ancient India. Modern Kabaddi is therefore a synthesis of the game played in various forms under different names. Kabaddi received international exposure during the 1936 Berlin Olympics, demonstrated by India. The game was introduced in the Indian National Games at Calcutta in 1938. In 1950 the All India Kabaddi Federation came into existence and framed the rules. The game was included for the first time in the Asian Games in Beijing in 1990 where seven teams took part. Kabaddi was introduced to and popularized in Japan in 1979 by Sundar Ram of India, who toured Japan on behalf of Asian Amateur Kabaddi Federation for two months to introduce the game. In 1979, matches between Bangladesh and India were held across India. The first Asian Kabaddi Championship was held in 1980 and India emerged as champion beating Bangladesh. The other teams in the tournament were Nepal, Malaysia, and Japan. The game was included for the first time in the Asian Games in Beijing in 1990 where seven teams took part.

Kho kho is a tag sport played by teams of twelve players, of which nine enter the field, who try to avoid being touched by members of the opposing team. It is one of the two most popular traditional tag games of the Indian subcontinent, the other being kabbadi. Self confidence in sports relies primarily on the athlete's ability to believe he can win and that he can be successful in his efforts.

The socio-psychological concept of **self-confidence** relates to self-assurance in one's personal judgment, ability, power, etc. Self-confidence in sports relies primarily on the athlete's ability to believe he can win and that he can be successful in his efforts. Consultants at the United States Tennis Association report that self-confidence is one of the most important attributes an athlete can possess and should be fostered by both athletes and their coaches.

Method:

The sample for the present study consists of 50 Male Kabbadi Players and 50 Kho Kho Players of Jalna. Dr. S.J. Quadri Self Confidence Inventory is used to assess the Self Confidence. This scale was constructed and standardized by Dr. Quadri Syed Javeed. That test consists of 30 items, each item 'YES' 'NO' type alternatives. This Questionnaire were given Kabbadi Players and Kho Kho Players to write separately in different groups.

Results and Discussion:

The Results of the Study shows that Kho Kho are having more confidence than Kabbadi Players. Kho Kho Game can improve your self confidence not only in game, but in other aspects of your life as well. It's an extremely challenging Sport that tests your limitations and to overcome physical and mental obstacles compare to the Kabbadi Players.

**Table I:
Self confidence inventory mean values of Kabbadi and Kho Kho Players**

| Variables | Group | Number of subjects | Mean | Standard deviation | Standard error |
|---------------------------|-----------------|--------------------|-------|--------------------|----------------|
| Self Confidence Inventory | Kho Kho Players | 50 | 25.8 | 0.88 | 0.12 |
| | Kabbadi Players | 50 | 19.32 | 1.1 | 0.16 |

In Table No.1 the Mean of Kho Kho Players is 25.8 and Kabbadi Players 19.34 there is a difference 5.94 between the Kho Kho and Kabbadi Players. Kho Kho Players are having more confidence than the Kabbadi Players.

Conclusion:

It is concluded that Kho Kho Players are having more self confidence than Kabbadi Players. Hence it is recommended that Psychological Training must be included in the Coaching Program in sports for development of Self Confidence among sports persons. Self confidence is the main psychological variable for key to success in sports and games.

Recommendations:

Similar Studies can be conducted on Women sports persons and other sports and games.

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Wikipedia, Kabbadi and Kho
International Journal of Health, Physical Education and computer Science in sports

Prosthetic Devices For Disabled Athletes

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Abstract:

with the advancement technology now being seen in the field of prosthetics, more and more amputees and handicapped people are engaging in athletics and active lifestyles. There has been a vast growth of leagues for disabled men and woman as well as more specialized leagues that work with more specific groups such as little people. As interest and commitment to allowing people with specialized needs grows the abilities and skill of many athletes will grow as well. The search for fair competition is growing and many handicapped athletes are pushing the limits reaching equal abilities of full bodied athletes. Over time . prosthetics have advanced in technology and given handicapped athletes a greater chance at fair competition; with the proper research and fair rule, prosthetic athletes will be able to overcome their boundaries.

Key words: Types of prosthetics, Types of prosthetic limbs, Modern Advances in Prosthetic Technology, Athletes with prosthetics

Introduction: prosthesis is an artificial device that replaces a missing body part, which may be lost through trauma, disease, or congenital conditions. Prosthetics are intended to restore the normal functions of the missing body part

Types of prosthetics : Prosthetics can be classified into three major categories for the patients:

Cosmetic prosthetics

Body-powered prosthesis

Myoelectric externally powered prosthesis

Cosmetic prosthetics: Cosmetic prosthetic can be inexpensive, but they offer limited movement and can only grip light objects passively. This types of prosthetic is designed for people who want to use their other limbs for most major function.

Body-powered prosthetics: Body-powered prosthetics allows muscles relative to the area to control the prosthetic with cables. While it does allow a greater degree of freedom and enables patients to feel the force, a body-powered prosthetic can control just one movement at a time and can quickly cause use fatigue

Myoelectric externally powered prosthesis: Myoelectric control is an advanced technique concerned with the detection, processing, classification, and application of myoelectric signals to control human-assisting robots or rehabilitation devices. "Myoelectric" is the term for electric properties of muscles. A myoelectric-controlled prosthesis is an externally powered artificial limb that you control with the electrical signals generated naturally by your own muscles. Hand, wrist and elbow myoelectric components are available

Types of prosthetic limbs: in theory, any part of the body-from your ear or nose to your finger or toe-could be replaced by a prosthesis. In practice, there are four common types of prosthetic limbs, which replace either a partial or complete loss of an arm or leg.

Below the knee (BK, Transtibial) An prosthetic lower leg attached to an intact upper leg

Above the knee (AK, Transfemoral) A prosthetic lower and upper leg, including a prosthetic knee

Below the elbow (BE, Transradial) a prosthetic forearm

Above the elbow (AE, Transhumeral) A prosthetic lower and upper arm, including a prosthetic elbow
Modern Advances in Prosthetic Technology: Modern prosthetic devices are made using advanced plastic and carbon fiber composites. These materials makes the limb much lighter yet stronger and look more realistic. With the help of electronic technology , prosthetics in today's world give the user more control. Modern prosthetic devices are capable of automatically adapting their function in performing certain tasks, namely holding something or walking. The prosthetic can also be custom made and look however you choose. You can even accessorize it with a favorite sports team's logo. Your favorite color or even a designer style. The prosthesis can be designed to reflect your unique personality.

Athletes with prosthetics:

Oscar Leonard Carl Pistorius: Oscar Leonard Carl Pistorius is a South African former sprinter runner both of Pistorius's legs were amputated below the knee when he was 11 months old he was the tenth athlete to compete at both the Paralympic games and Olympic games, competing in sprint events for Below-knee amputees in Paralympic events, and in non-disabled sprint event.

After becoming a Paralympic champion, Pistorius attempted to enter non-disabled international competition, over persistent objections of the IAAF and charges that his artificial limbs gave an unfair advantage. Pistorius eventually prevailed in this legal dispute. At the 2011 World Championships in Athletics, Pistorius became the first amputee to win a non-disabled world track medal. At the 2012 Summer Olympics, Pistorius became the first double-leg amputee to participate in the Olympics. As technology and the capabilities of prosthetics continue to grow

Conclusion: As technology and the capabilities of prosthetics continue to grow, more amputees will see the hope to continue to live active lives. Soon there more than prosthetics that are able to perform at the same level as natural limbs. With stem-cell research expanding, amputees might one day have the ability to replace un-repairable limb with another them to play, role models, and fair rules, the abilities and numbers of prosthetic athletes will continue to grow

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Impact of Technology on Basketball

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Abstract:

Technology plays an important role in field of basketball and it also shows different technologies used in the field of basketball and the difference it makes in basketball field. Through this study the analysis of whether there is maximum awareness or minimum awareness among the players, coaches, audiences and technology users in the field of Basketball. Technology not only enriches the game quality for the audience for watching a match but also leaves a powerful impact on them. Through which people will get the awareness of the un-aware technologies used in the field of basketball.

Introduction:

The game that has begun with a peach basket and a Canadian Teacher Dr. James Naismith in Springfield in 1891. Basketball started to grow quickly as 20th Century and is one of the most famous games all over the World. It was first started in America as college level game slowly and now it's a Professional level game played all over the world.

In this 21st Century world Technology play a vital role in day to day life. Technology is set of techniques, methods and processes used for embedding technological equipment's in field of sports as well. Technology in sports has expanded in a flourished manner and changing over the timeline and the use of technology in sports is only the single aspect which has made an impact in the modern world in the field of sports.

Basketball:

Basketball's first phase is far more primitive than what it has become today. Initially it was affixed to an elevator track with a peach basket until Mr. Naismith decided to cut open the basket as the person had to climb and take the ball out after the team has scored the point. Basketball had become the brand new sport at that time and no specific ball was specified for playing the game. At the initial stage of basketball, it was played with the soccer ball with which dribbling was not possible. Today the orange pebbled ball that we all know and love as a basketball was invented in 1950's. Since those days from peach basket to the awkward soccer ball and now to the orange pebbled ball, basketball has seen and undergone lots of changes.

Technology:

The word technology was derived from a Greek word "Techic" that means skills or arts, and "logia" means study or science. Thus, Technology means the Study of an art or skill. However, according to the historian Paul Sattler, the term Technology is derived from the Latin word "Texere" which means 'to construct' or 'waive'. So it does not only means use of machines as we all know in common, but it means any practical art of applying scientific knowledge.

Thus, Technology in sports plays a vital role in the modern world and as in televisions, mobile phones, tablets, etc., it is playing a vital role of accurate results, replays, etc.,

Methodology:

Sampling is a technique of selecting a subdivision of units from a target group of people for the purpose of collecting information. This information is used for drawing inferences about the population as a whole. The subset of units that are selected is called a sample. The targeted population in this research is going to be the coaches, the players, the technology users and the viewers related to Basketball. The total number of targeted population is going to be about 50 to 60 as a sample targeted population. The sample collection method is going to be descriptive sampling with observational method of descriptive sampling technique. In observational method of sampling the researcher uses a method of viewing and recording the participants. Data is collected using observation method. In this method the researcher has observed the players, coaches, technology users and the viewers and observed them on the hypotheses whether they use technology which has made significant difference in basketball.

Data Analysis Technique:

Data is being collected with the help of a questionnaire. The questionnaire and the interview are essentially the same except for the method of questioning. Questionnaires are usually answered in writing, whereas interviews are usually conducted orally.

Data is the collection of raw facts and figures which are collected together for analysis of the research, the reliability of the data collected plays a vital role in making accurate decision depending upon the data collected from the targeted population of study.

RESULT:

The graphical representation of the information collected on the bases of observational method where it clearly shows that there is not much awareness about the technologies used in the field of basketball to the maximum extends and people are slowly getting the awareness of the various technologies used in the field of basketball

Discussion:

This article aims at describing the development of technology in Basketball game. With all the existing ways to view a basketball game – tablet, smartphone, television that provides all the different modes of replay, video-recording, reviews, etc., as per the demand of the audience. The biggest event of the basketball game is the NBA which is National Basketball Association which is professional basketball league in North America which comprises of 30 teams (29 from USA and 1 from Canada) for both men and women which is organised by FIBA also known as International Basketball Federation which has also become the World's Most Tech – Savvy Sport. NBA has been the most progressive leagues in the field of technology.

The following are the technologies used in the field of basketball:

Instant Replay:

Instant Replay in Basketball first ever came in 2002-2003 season. Instant Replay is a video recording of something that recently occurred which was both shot and telecast live. In this replay the video which is already been telecast and shown in live has been replayed for the viewers to see again and analyse what had taken place in the game. In NBA, the officials must watch an instant replay of the potential buzzer beater to determine the shot was released before the time expired or the line was touched or not for the clarity of the ball positioning, last touch, etc.,

Rookie gear technology:

Rookie gear provides a lighter ball, for a better experience and is designed to weigh less than standard youth balls for kids until 8 year. A lighter ball creates better experience allowing the kids to practice proper fundamentals more easily and efficiently which builds the confidence in them which they need with a ball that is appropriate in size and weight. Young athlete learns faster and performs better than ever before.

The advantage of Rookie Gear technology:

Weights 15% less than the traditional balls.

Premium soft Grip Technology Cover.

For indoor and outdoor use.

Grip control:

The new developed, two layered sponge rubber design gives a soft grip, perfect game characteristics and a very long durability in category of outdoor balls. Because of its high-end composite and high pebble design this ball has a superior grip as well as new and improved touch.

Shot clock:

Shot clock has first come into basketball in 1954 in Syracuse, New York. The shot clock has transformed the basketball like nothing else. In basketball shot clock is designed to increase the pace of the game. The offensive team has to shoot the basket before the shot clock expires and if the offensive team fails to score a field score within the time limit, they are assessed a violation resulting in the turnover to the opponents. Thus, the shot clock technology has significantly improved the pace of the game which in turn results the players taking lot more shoots in the game. The shot clock is used to time possessions by the offensive team and it is used in basketball as it is played at high level.

Scoreboard:

The scoreboard shows both the time left and the scores of both the teams. Most high school scoreboard displays the number of foul of both the teams as well. College level scoreboard comprises of the shot clock and the number of time outs for each team. The shot clock has its own buzzer system sounding a different octave to avert any confusion with the game clock system. Since 1991, the NBA have compulsory that each shot clock carry a duplicate readout of the time left in the period in addition to shot clock.

Analysis: Each player can see and work on their mistakes and faults committed in the game by seeing the recording of the game and each player can analyse and improve their performance for the future games. The practice sessions will be improved with the modern and different level of technology used for enhancing their performance for the future games. The recording facility of the technology is the most amazing role that technology plays in the field of sports. This study will also be beneficial for the future studies related to this area.

Conclusion:

From the above result it is clear that there is no complete awareness to the population about technologies used in basketball. We need to showcase that different technologies are used while evaluating scores in basketball matches, instant replay technology and analysis done with the use of the modern technology in the field of basketball. The entire event management through the usage of technology should be presented to the audience and the coaches.

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Aerobic Fitness And Body Composition Of College Students

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Abstract

The present study aimed to compare the level of aerobic fitness and body composition of trained and untrained male college students of West Bengal, India. Trained students (N = 250) in the age range of 19-25 years were separated from their untrained counterparts (N = 250) according to their level of physical activity. Aerobic fitness in terms of maximum oxygen uptake capacity ($\dot{V}O_{2max}$) was estimated by Queen's College Step Test. In order to evaluate the body composition variables (body mass index, % body fat, lean body mass, % skeletal muscle mass, % skeletal mass and body surface area) researcher applied a testing procedure that included measurements of height (cm), body weight (kg), three muscle girths (upper arm, thigh and calf) in cm, four bone diameters (humerus, bistyloid, femur and bimalleolus) in cm, and eight skinfolds thickness (triceps, sub-scapular, suprailiac, pectoral, axilla, abdominal, thigh and calf) in mm. Results found statistically significant ($p < 0.01$) higher values of $\dot{V}O_{2max}$ in trained college students compared to untrained students. The body composition variables have been compared between both groups and found trained college students possess better body composition in each variables than their counterpart. A negative correlation was found to $\dot{V}O_{2max}$ with % body fat ($p < 0.01$) and body surface area ($p < 0.05$) of both trained and untrained groups. The BMI, lean body mass and % skeletal muscle mass have the significant ($p < 0.01$) positive correlations with $\dot{V}O_{2max}$. Finding suggest that beneficial effects of regular exercise on $\dot{V}O_{2max}$ and body composition variables in college students.

Keywords: $\dot{V}O_{2max}$, Lean body mass, % Body fat, Physical activity.

INTRODUCTION

Aerobic fitness is a major component of fitness for good health as well as for optimal performance in many sports. Aerobic fitness is best described as the maximal rate of whole body oxygen consumption ($\dot{V}O_{2max}$) of an individual. The measure of the maximal rate of whole body oxygen consumption during exercise ($\dot{V}O_{2max}$) has a history dating back to the pioneering work of A.V. Hill in the 1920. Traditionally, $\dot{V}O_{2max}$ has been interpreted as a measure of the maximal capacity of the cardiorespiratory system to acquire oxygen, circulate it to working muscle, where muscle can the extract and utilize oxygen in mitochondrial respiration to meet the energy needs of muscle contraction. The measure of $\dot{V}O_{2max}$ has therefore been invaluable in quantifying endurance fitness and the status of the cardio-respiratory and muscular systems for all individuals ranging from the athlete to the sedentary and diseased.

$\dot{V}O_{2max}$ varies among individuals in a same population, such as the trained runners or untrained individuals [1]. The variables that can be used to explain the variance in $\dot{V}O_{2max}$ include training status, genetic predisposition, body mass, body composition, maximal arteriovenous oxygen content difference, maximal heart rate, maximal cardiac output, and somatotype components [2,3]. Previous pertinent studies indicated body mass [4-6], fat free mass [7], % body fat [8] and body surface area [9] are the best predictor of $\dot{V}O_{2max}$. The available studies, which primarily consist of $\dot{V}O_{2max}$ and lean body mass (LBM) measurements in sedentary subjects, are difficult to interpret due to the confounding effects of age associated changes in body fat and muscle oxidative capacity [10]. Additionally, many studies of the decline in $\dot{V}O_{2max}$ with aging, particularly in trained subjects, have not statistically adjusted $\dot{V}O_{2max}$ for age

or gender differences in body composition [11,12]. Finally, it is unclear what relevance indicators of whole body muscle mass have as determinants of $\dot{V}O_{2max}$. when most of the O_2 consumed during $\dot{V}O_{2max}$ testing is used by the limb muscles [13,14]. It is well known that absolute $\dot{V}O_{2max}$ is strongly influenced by change in body size. For that reason body size should help to explain the aerobic capacity of an individual[16]. Some recent studies have shown that there are separate and independent health effects of aerobic capacity and fatness[17-19].

There have been several publications in previous years reporting on the quantity of physical activity performed by college students [19,20]. In the recent decade, a decline in physical activity among college students has been observed [20,21]. Regular physical activity is an important part of a healthy lifestyle. It is associated with decreased risk of heart disease [22], obesity [23], and cancer [24] and related to psychological well-being with lower levels of stress [25-27] and better cognitive functioning [28]. The purpose of this study was to compare the level of aerobic fitness and body composition of trained and untrained college student.

Materials And Methods

Subjects

The present study was conducted on 250 trained and 250 untrained (total 500) young college levels male students. Age range of the subjects was 18 to 25 years (Mean 22.57 years, SD \pm 2.34). The age of the subjects were calculated from the date of birth as recorded in their institution. Trained students were completed one year Bachelor of Physical Education (B.P.Ed) course and took part in obligatory physical activities under their course of study whereas, untrained students were not participated regular physical activity. All the subjects were non-smoker. Subjects were selected from nineteen colleges located in nine different districts of West-Bengal in India irrespective of their caste, religion, dietary habits and socio-economic status. The investigator received ethical approval from the Visva-Bharati University Research Degrees Ethics Committee.

Measurements

The anthropometric measurements were carried out using standard instruments and in accordance with the methodology recommended by the International Society for the Advancement of Kinanthropometry[29]. Body height was evaluated in cm, along with body weight in kg, three muscle girths (upper arm, thigh and calf) in cm, four bone diameters (humerus, bistyloid, femur and bimalleolus) in cm, and eight skinfolds thickness (triceps, sub-scapular, suprailiac, pectoral, axilla, abdominal, thigh and calf) in mm were measured. For calculating body density of the subjects Jackson and Pollock[30] equation was adopted. The Siri equation [31] was used to convert body density to percent body fat of each participant. Poortman's[32] and Drinkwater et. al. [33] formula was taken up for assessing skeletal muscle mass and skeletal mass respectively. Measurement of Body Surface Area (BSA) of the subjects Mosteller's formula [34] was used. All subjects undertook Queen College Step Test [35] for estimating $\dot{V}O_{2max}$.

Statistical analysis

The Statistical Package for the Social Sciences (SPSS; version 18.0) was used for the data analysis. Descriptive statistics (mean, \pm standard deviation) and Student t-test for independent samples were used for compared between the trained and untrained college students. Pearson's correlation of coefficients was used to establish the correlations of $\dot{V}O_{2max}$ with body composition variables in trained and untrained of college students.

Results

Mean, S.D. and t-value of body composition variables and aerobic fitness of trained and untrained college students were shown in table- 1. The trained subjects had significantly greater value of body mass index ($p < 0.01$) as compared to untrained students. Lean body mass ($p < 0.01$), % skeletal muscle mass ($p < 0.01$) and body surface area ($p < 0.01$) were found significantly higher in trained students when compared to the untrained students. No significant difference was reported between the two groups in relation to % skeletal mass. The trained college students had significantly higher amount of $\dot{V}O_{2max}$ ($p < 0.01$) than the untrained students.

Table- 1: Body composition and aerobic fitness of trained and untrained college students

| Variables | Trained | | Untrained | | t-Value |
|---------------------------------------------------------------|---------|------|-----------|------|---------|
| | Mean | S.D. | Mean | S.D. | |
| Weight (kg) | 60.44 | 5.53 | 58.43 | 6.48 | 3.71** |
| Height (cm) | 168.33 | 5.59 | 168.82 | 5.63 | 0.97 |
| BMI | 21.31 | 1.35 | 20.51 | 2.06 | 5.11** |
| % Fat | 12.37 | 3.01 | 14.36 | 3.69 | 6.58** |
| Lean Body Mass (kg) | 52.9 | 4.55 | 49.95 | 5.23 | 6.70** |
| % Skeletal Mass | 13.57 | 1.34 | 13.38 | 0.98 | 1.80 |
| % Skeletal Muscle Mass | 49.79 | 3.22 | 48.35 | 3.32 | 4.90** |
| Body Surface Area (m ²) | 1.68 | 0.09 | 1.65 | 0.10 | 3.51** |
| $\dot{V}O_{2max.}$ (ml.kg. ⁻¹ min. ⁻¹) | 54.83 | 5.38 | 40.91 | 6.51 | 36.78** |
| ** indicates p< 0.01. | | | | | |

Table- 2: Pearson correlation of body composition with aerobic fitness of both trained and untrained students

| Variables | $\dot{V}O_{2max.}$ (ml.kg. ⁻¹ min. ⁻¹) | |
|-----------------------------------------------|---------------------------------------------------------------|-----------|
| | Trained | Untrained |
| Weight (kg) | 0.657** | 0.476** |
| Height (cm) | 0.466** | 0.385** |
| BMI | 0.338** | 0.337** |
| % Body Fat | -0.344** | -0.516** |
| % Skeletal Muscle Mass | 0.364** | 0.297** |
| % Skeletal Mass | 0.068 | 0.056 |
| Lean Body Mass (kg) | 0.763** | 0.539** |
| Body Surface Area (m ²) | -0.135* | -0.124* |
| ** indicates p< 0.01 and * indicates p< 0.05. | | |

Table- 2 comprises the coefficients of correlation for both trained and untrained groups of $\dot{V}O_{2max.}$ with various body composition variables. Significant positive correlation (p< 0.01) was observed in both group when aerobic fitness was correlated with BMI, % skeletal muscle mass, lean body mass; whereas, negatively correlated with % body fat (p<0.01) and body surface area (p<0.05). On the other hand, % skeletal mass was found insignificant correlation with aerobic fitness in both groups.

Discussion

The trained college students have significantly ($p < 0.01$) higher value of $\dot{V}O_{2max}$ than untrained students as also reported in previous studies from the country and abroad [36-38]. So untrained college students have lower aerobic capacity and poor physical fitness in respect to their trained counterparts. The $\dot{V}O_{2max}$ of active subjects reported by Banerjee et. al. [39] was comparable to the trained students of the present study. On the other hand the aerobic fitness of the untrained college students obtained in the present was similar with the findings of Bandyopadhyay, A. and Bandyopadhyay, P. [40].

Various body composition variables showed significant correlation with $\dot{V}O_{2max}$. Previous pertinent studies indicated body mass as the best predictor of $\dot{V}O_{2max}$ [4,5,9,41]. In the present study body mass exhibited higher value of correlation coefficient ($r=0.657$) with $\dot{V}O_{2max}$ than height ($r=0.466$) in case of trained students, while untrained students depicted lower value of correlation coefficient ($r=0.476$) between body mass and $\dot{V}O_{2max}$ than that of between height and $\dot{V}O_{2max}$ ($r=0.385$). Verma et. al. [41] in their studies proposed that physical characteristics were good predictors of maximal oxygen uptake in Indian males and more importantly they obtained highest value of correlation coefficient when body mass was considered as an independent parameter.

In accordance with the results published by Sporiset. al. [42], present study also found negative correlation to body fat percentage with $\dot{V}O_{2max}$. This is probably because of the excessive amount of body fat that appeared to exert an unfavourable burden as well as hindering action towards cardiac function, particularly during exhausting exercise when excessive hyperactive body musculature fails to uptake sufficient amount of oxygen due to deposition of proportionately high amount of fat mass [7,43]. Similarly, Dempsy et. al. [44] found excess body fat impairs cardiorespiratory functions and reduces mechanical efficiency for a given work load. Finding of the present study was in accordance with the work of Lang et. al. [45] who described a significant relationship between skeletal muscle mass and $\dot{V}O_{2max}$. Other authors [46] found a significant relationship between $\dot{V}O_{2max}$ and thigh muscle cross-sectional area. Therefore, it may be concluded that skeletal muscle mass is an important variable for determining $\dot{V}O_{2max}$ of an individual. Lean body mass had highly significant correlation with $\dot{V}O_{2max}$ in both trained and untrained group [10]. These findings provide additional support for expressing dependence of $\dot{V}O_{2max}$ to lean body mass.

Conclusion

Present study showed beneficial effects of regular exercise on $\dot{V}O_{2max}$ and body composition variables in college students. Therefore, regular physical exercise can be included as a part of curriculum for college students.

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