

EFFECT OF SELECTED WEIGHT TRAINING EXERCISE AND PLYOMETRIC TRAINING ON EXPLOSIVE STRENGTH OF COLLEGE ATHLETES

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ABSTRACT

The purpose of the present investigation was to find out the effects of selected weight training exercises and plyometric exercises on explosive strength of college athletes. . Sixty male college athletes (23.17 ± 1.87 years of age), who volunteered to participate in this study were randomly selected. All the selected students expressed their enthusiasm and willingness to participate as subjects. The selected athletes were divided into three equal groups, namely Experimental group-I, Experimental group-II and control group. Experimental group I was given plyometric exercises, experimental group II was given weight training exercises and control group was not given any Experimental treatment except of their regular workouts. Experimental Group-I performed plyometric drills i.e. Hopping on one leg:, Hopping, Bounding and Box Jumps and Depth Jumping. Experimental Group-II performed the weight training exercises i.e. Leg press, Overhead press, Half squat, Bench press, Calf raise, and Barbell Extension. The leg press, half squat, calf raise exercises. The standing broad jump was the criterion measures used to measure explosive strength of the college athletes. The statistical analysis of data showed that there was significant difference on the effect of plyometric training and weight training exercises on explosive power. The significant improvement in explosive strength was seen more on plyometric group and weight training group than control group

Keywords: Plyometric training, Explosive Strength, College athletes

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INTRODUCTION

Plyometric exercises are based upon the belief that a rapid lengthening of a muscle just prior to contraction will result in a much stronger contraction. The added contractile strength is believed to be done to stretching of muscle spindles involved in mitotic reflex and resulting in an increased frequency of motor unit discharges stimulations of other receptors and increased number of activated motor units.

Plyometrics exercises are used to improve maximum strength and speed of movement which result in an increase of explosive power. Dynamic in nature, these exercises satisfy the basic training principles of specificity, practice with movements similar in nature and speed to the skills or events for which one is trained. Though plyometric training is relatively new in India, this training technique has been used extensively in USSR and America since the early 1960's. Early researches on plyometrics were made with a little interest in hopping and bounding drills. In recent years the method of plyometrics has become a part of the training methods in sports and games (Wilf & Freeman, 1984).

Plyometrics consists of exercises commonly used to enhance explosive power via the stretch-shortening cycle (SSC), (Michael et al., 2001; Rahimi, 2005). The stretch component of the SSC refers to the eccentric muscle action, whereas the shortening refers to the concentric muscle action (Michael et al., 2001). Elastic energy is stored in the tendo-muscular system during the eccentric action (Michael et al., 2001). This is accomplished by optimizing the stretch-shortening cycle, which occurs when the active muscle switches from rapid eccentric muscle action to rapid concentric muscle action (Luebbers et al., 2003; Lachance et al., 1995; Wagner et al., 1997).

Plyometric exercises are specialized, high intensity training techniques used to develop athletic power (strength and speed). Plyometric training involves high-intensity, explosive muscular contractions that invoke the stretch reflex (stretching the muscle before it contracts so that it contracts with greater force). The most common plyometric exercises include hops, jumps and bounding movements. One popular plyometric exercise is jumping off a box and rebounding off the floor and onto another, higher box. These exercises typically increase speed and strength and build power.

Stone & O'Bryant, (1986) and Adams et al. (1992) suggested that this combination of weight training and plyometric training may provide a more powerful training stimulus to the vertical jumping performance than either weight training or plyometric training alone. It seems that researchers have not come to an agreement about the relative effectiveness of plyometric training compared with weight training or the combination of both in the development of explosive power performance. Therefore, the purpose of the present investigation was to find out the effects of selected weight training exercises and plyometric exercises on explosive strength of college athletes.

METHODOLOGY

Selection of Subject:

Sixty male college athletes (23.17 ± 1.87 years of age), who volunteered to participate in this study were randomly selected for this purpose. All of the subjects participated in inter-collegiate level sports and games competitions and none were being trained by means of a plyometric and weight training program. All of the subjects had successfully passed a physical exam and completed a medical history questionnaire in which

they were screened for any possible injury or illness. They were also healthy without any physical disabilities that might have influence the scores. The subjects received all the necessary information about the study's procedures. All the selected students expressed their enthusiasm and willingness to participate as subjects.

The selected athletes were divided into three equal groups, namely Experimental group-I, Experimental group-II and control group. Experimental group I was given plyometric exercises, experimental group II was given weight training exercises and control group was not given any Experimental treatment except of their regular workouts.

Training Protocols:

Two training groups trained five days per week for a period of six weeks. Training exercises were given in the morning and evening for duration of 90 minutes per day from Monday to Friday. All workouts were given after warming up. Warming up was concluded with numbering exercises. Before the initiation of the training periods, the subjects of all the groups were instructed about the proper execution of all of the exercises to be used during the training period for all training regimens. This assured good orientation and helped the subjects to explore better.

A pilot study was conducted before finalising the training program to ensure that intensity and duration of the program were within the limits of the subjects' capacity to produce the desired effect. The training load was given on the basis of the athlete's strength and his capacity to withstand the load for a period of time.

The subjects in the plyometric group (Experimental Group-I) performed the following plyometric drills:

1. Hopping on one leg: Hopping should be considered as running on one leg. The other leg does not remain passive but punches hand forward landing with feet. Both knees should be released. It is more important in developing physical fitness components such as explosive power, strength and speed
2. Hopping, Bounding and Box Jumps: Bounding is an exaggeration of the running action. The athlete emphasis a vigorous thrust off the ground and step high up and forward. The progressive thigh is driven at waist height and parallel to the ground landing employ an active reach for the ground. After hopping bounding jumping drills as per the work schedule was given, the subjects were given drills on jump over hurdles and depth jump. This will increase the subject's agility, endurance and flexibility
3. Depth Jumping: To perform depth jumping the subjects stand on top of the box and drop off to the ground it was done in single leg and double leg. He should not jump off the box.

The subjects in the weight training group (Experimental Group-II) performed the following weight training exercises : Leg press, Overhead press, Half squat, Bench press, Calf raise, and Barbell Extension. The leg press, half squat, calf raise exercises were used to strengthen the leg muscles and the remaining exercises in overhead press and barbell extension were used to strengthen the arm muscles

Initial and final scores on speed were collected using standard tests before and after the experimental period. And the collected data were subjected to statistical treatment.

TEST ADMINISTRATION

The standing broad jump (Yobu, 1988) was the criterion measures used to measure explosive strength of the college athletes. The criterion measure is explained below:

Purpose : To measure the explosive power of legs. Materials: Tape, Jumping pit. Procedure: The student stands behind a take off line with his feet several inches apart. Before jumping, the student dips at the knees and swings the arm backward. He then jumps forward by simultaneously extending the knee and standing the arms forward three trials are permitted. Scoring: The scoring is the distance between the take off line and the nearest points where any part of the student body touches the floor. Best performance out of three trials is taken as his score. Rules: Three trials were given. The measurement was done from the take off lane to the point where the body touched the floor nearest to the take off lane.

RESULTS AND DISSCUSION

The collected data on the explosive strength prior to and after 6 weeks of plyometric and weight training exercises were statistically analysed using Analysis of Covariance (ANACOVA). The level of significant was set at .05 level. To test the significant differences between the groups and to determine which group performed better, Scheffe's Post -hoc test (Clarke and Clarke, 1972) was applied. The ANACOVA for explosive strength scores of college athletes for Plyometric, Weight training and control groups are presented table 1 to 3.

TABLE I
ANALYSIS OF VARIANCE OF PRE-TEST AND POST-TEST SCORES ON
EXPLOSIVE STRENGTH OF COLLEGE ATHLETES

Source of Variance	df	Sum of Squares (x)	Sum of Squares (y)	Mean Square (x)	Mean Square (y)	F-ratio (x)	F-ratio (y)
Between Sets	2	0.437	2.065	0.219	1.032	1.1.8	17.00*
Within Sets	57	7.004	3.433	0.123	0.060		

Significance at .05 level, $F_{.05}(2, 56) = 2.77$

It is evident from Table 1 that the significance difference was not found among initial means of three group athletes, as the obtained F-value of 1.18 was less than the required $F_{.05}(2, 57) = 2.77$. So, it is demonstrated that the random assignment of the subjects for three groups (Plyometric, Weight training and control group) was successful

The significance difference was found among final means of three group athletes, as the obtained F-value of 17.00 was high than the required $F_{.05}(2, 57) = 2.77$. So, it was found that there was significant improvement due to treatment on the subjects.

The adjusted mean scores to test the significance differences among three groups ((Plyometric, Weight training and control group) was determined using ANACOVA.

TABLE 2
ANALYSIS OF COVARIANCE OF PRE-TEST AND POST-TEST SCORES ON
EXPLOSIVE STRENGTH OF COLLEGE ATHLETES

Source of Variance	df	Sum of Squares (x)	Sum of Squares (y)	Sum of Squares (x y)	Mean Square (y × x)	SD (y × x)	F-ratio
Between Sets	2	0.437	2.065	1.675	0.837	0.240	14.60*
Within Sets	56	7.004	3.433	3.221	0.058		

Significance at .05 level, $F_{.05}(2, 56) = 2.77$

As mentioned in table 2 that the obtained f-value of 14.60 was greater than the required value of 2.77 at .05 level of significance. Hence the null hypothesis was rejected and researcher's hypothesis that there would be significant difference due to plyometric and weight training exercises was accepted at .05 level.

The adjusted mean value of three groups ((Plyometric, Weight training and control group) and the required mean difference as calculated by using Scheffe's test are presented in Table 3 and mean scores as depicted in figure 1.

TABLE 3
ORDERED ADJUSTED MEANS FOR EXPLOSIVE STRENGTH TESTED FOR
SIGNIFICANCE USING SCHEFFE'S TEST

Plyometric Group	Weight Training Group	Control Group	MD	Confidence Interval (CI)
2.08	2.10	-	0.02	0.06
2.08	-	2.45	0.37*	
-	2.10	2.45	0.35*	

Significance at .05 level

As presented in table 3 that all three groups ((Plyometric, Weight training and control group) adjusted mean differences were significantly different between plometric training group- control group and between weight training group- control group at .05 level. However, there was no significant difference between plometric training group- weight training group.

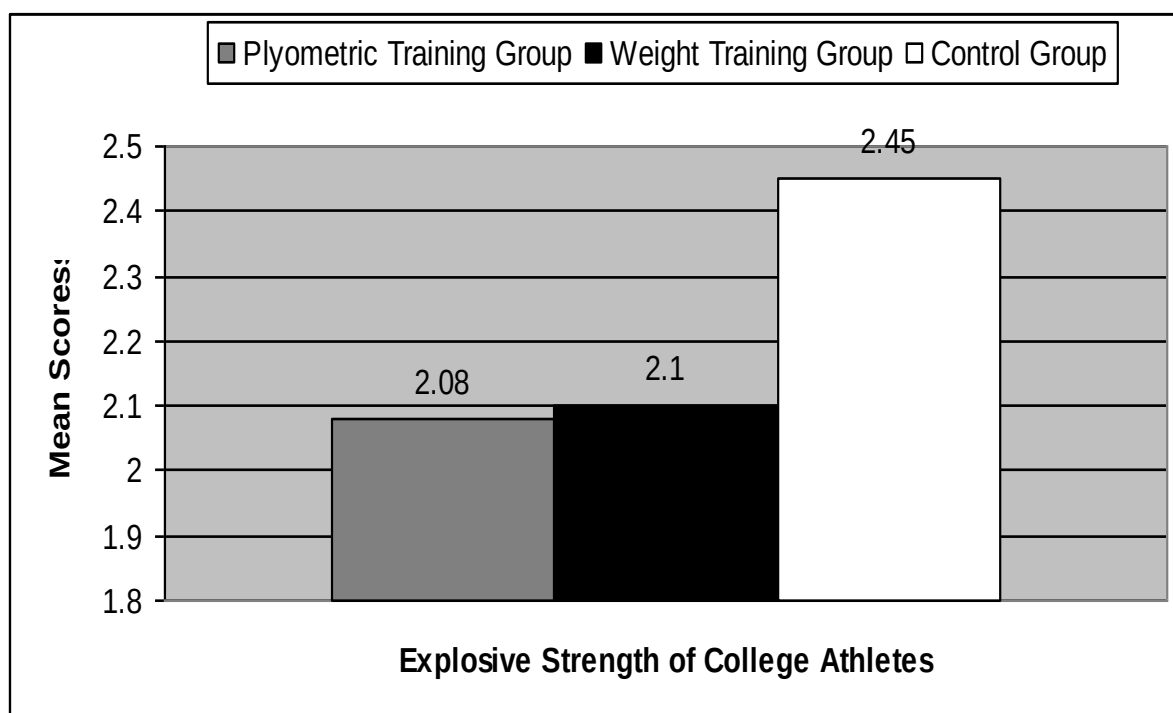


Fig.1: Mean Scores of Plyometric Group, Weight Training Group and Control Group on Explosive Strength of College Athletes

DISCUSSION

The results of the study showed that there was significant difference on the effect of plyometric training and weight training exercises on explosive power.

The scores were analysed through ANACOVA and found that there was significant differences between the groups in explosive strength.

It was also documented that due to weight training exercises there was significant mean gains over control group. The findings of this study were in agreement with the findings of Mullai (1987) , who found that plyometric exercises improved sprinting ability The findings of this study were also in agreement with the findings of Watson (1983), who found that plyometric exercises were better than weight training exercises in improving physical fitness of the subjects.

CONCLUSIONS

Based on the results and discussions of the study. it was concluded that

1. There was no significant difference between weight training exercises and plyometric training after the experimental treatments.
2. There was significant improvement in explosive strength on plyometric group than control group and weight training group than the control group.

BIBLIOGRAPHY

- Adams, K., O'shea, J.P., O'shea, K.L., & Climstein, M.** "The Effect of Six Weeks of Squat, Plyometric and Squat-plyometric Training on Power Production" . Journal of Applied Sport Sciences. 6 (1992) : 36–41.
- Clarke, Harrison H. & Clarke, David H.** Advance Statistics: Suppliment to Research Proces in Physical Education, Recreation and Health, Englewood Cliffs, N. J : Prentice Hall, 1972, p.10.
- Lachance, P. F.** "Plyometric Exercise". Journal of Strength Conditioning . Research. 8 (1995) : 16-23.
- Luebbers, P. E., Potteiger, J. A., Hulver, M. W., Thyfault, J. P., Carper, M. J., & Lockwood, R. H.** "Effects of Plyometric Training and Recovery on Vertical Jump Performance and Anaerobic Power" Journal of Strength Conditioning . Research.17 :4 (2003) : 704–709.
- Mullai, T.D.** "Effect of Selected Piyometric Exercises on the Performance of Long Jump", Unpublished Master's Thesis, University of Madras, 1987.
- Michael, M., & Ciser, C.** "The Influence of Varied Rest Interval Lengths on Depth Jump Performance". Journal of Strength Conditioning . Research.15 : 3 (2001) : 279-283
- Paish, Wilf and Freeman, Everlyne** Plyometrics, Iowa: Championship Books,, 1984.
- Rahimi, R., & Behpur, N.** "The Effects of Plyometric, Weight and Plyometric-Weight Training on Anaerobic Power and Muscular strength". Journal of Physical Education and Sport, 3 : 1 (2005) : 81 – 91.
- Stone, M., & O'Bryant, H.** Weight Training: A Scientific Approach. Minneapolis: Burgess, 1986.
- Watson, A.W.S.,** Physical fitness and Athletic performances, New York: Longman Inc, 1983.
- Yobu, A.** Test, Measurement and Evaluation, Madras: Grace Printers, 1988. p. 212
- Wagner, D.R., & Kocak, M.S.** "A Multivariate Approach to Assessing Anaerobic Power following a Plyometric Training Program". Journal of Strength Conditioning . Research., 11 (1997) : 251–255.

ASSESSMENT OF SPORTS ORIENTATION OF INTER-UNIVERSITY LEVEL FEMALE KHO-KHO PLAYERS BELONG TO DIFFERENT UNIVERSITIES OF EAST-ZONE REGION

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ABSTRACT

The purpose of the study was to analyse and determine the sports orientation in inter-university level female Kho-Kho players belong to different universities of East-zone region. For this purpose, One hundred and fifteen Inter-university level female Kho-Kho players amongst the players representing their respective university in East Zone Inter-university Female Kho-Kho Tournament, 2011-2012 at Bilaspur (CG) were selected as the subject for this study. The Sport Orientation Questionnaire prepared and developed by Daniel L. Gill and Thomas E. Deeter (1986) was administered upon all the selected subjects. To assess the sport orientation in East-zone Inter-university level female Kho-kho players, the mean, standard deviation, t- ratio, f-ratio and Pearson moment coefficient correlation were computed by using SPSS 16 Version. The results of the study revealed that competitiveness was found in greater amount among East-zone Inter-university level female Kho-Kho players of different universities. They had also significant correlation between competitiveness and win orientation followed by goal orientation. The high and low achiever inter-university level female Kho-Kho players were found dissimilar in competitiveness and win orientation and similar in goal orientation. Sport orientation among high achiever inter-university level female Kho-Kho players was higher than their counter parts.

Keywords: Competitiveness, Sport orientation, Interuniversity level Players

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INTRODUCTION

Individual differences is one of the corner stones of both psychology and sport psychology. Sport psychologist attempt to understand the role of individual differences in sport and exercise behavior in our research and applied sport psychologists recognize the importance of individualizing approaches to match individual needs and capabilities. Such individual differences are nowhere more apparent than in reactions to competition.

Such individual differences in sport orientation are of interest in themselves, as sport psychologists seek to understand behavior in competitive and noncompetitive sport settings. Individual differences are also of practical concern. Coaches, teachers, and sport psychologists who understand individual differences can individualize instruction and can develop strategies and approaches to accommodate and even take advantage of individual differences. Participants themselves who understand individual variations can adapt and develop strategies and approaches that match their individual needs and capabilities (Gill, 1993).

Individual differences in competitiveness, which can be defined simply as achievement orientation toward competitive sport, or a sport specific form of achievement orientation. Martens (1976) more explicitly states: Competitiveness is defined as a disposition to strive for satisfaction when making comparisons with some standard of excellence in presence of evaluative others in sport.

The competitiveness subscale, which is the major component of the SOQ, represent competitiveness as defined in the earlier section. That is, competitiveness is a sport specific achievement orientation, or the tendency to strive for success and satisfaction in sport competition. This competitiveness subscale follows Martens's competition model (1977) and Scanlan's (1977) early competitiveness work, and should be useful for investigating competitiveness as defined by them.

The win and goal sub-scales relate more closely to research on competition as rivalry, and the traditional research on competitive, co-operative, and independent goal structures. Vealey's COI (1986), which assesses the relative importance of performance and outcome goals in competitive sport, reflects similar constructs, although performance and outcome are at opposite ends of a bipolar dimension for Vealey and independent orientation on the SOQ. These win and goal orientations, or the performance-outcome dimension, parallel some of the most prominent achievement research within psychology and education. In particular, the work of Nicholls (1984), as well as the efforts of Spence and Helmreich (1983), discussed earlier, has had an impact on sport achievement research. Duda (1987) and Nicholls (1984) distinction between task-involved and ego-involved goal orientation as the basis for sport achievement. Vealey (1986) recently followed that approach in developing a competitive orientation inventory which assess the degree to which an individual is oriented toward performing well in varied competitive situations

Most sport and exercise activities involve achievement of some sort, and competitive setting dominate. Moreover, given the achievement literature; the observations of those in sport and exercise setting; seemed quite probable that individuals' sport achievement orientations did not simply reflect general achievement orientations. So, the purpose of the study was to analyse and determine the sports orientation in inter-university level female Kho-Kho players belong to different universities of East-zone region.

METHODOLOGY

Selection of Subjects:

One hundred and fifteen Inter-university level female Kho-Kho players , who volunteered to be the subject, were selected from amongst the players representing their respective university in East Zone Inter-university Female Kho-Kho Tournament held at Guru Ghasidas Central University, Bilaspur (CG) from 11th to 14th October, 2011 as the subject of the study. Mean and SD of the age of the subjects were 19.70 ± 1.65 respectively. and ranged between 16 to 24 years.

Instrumentation:

In order to ensure proper response from the subjects, the scholar had a meeting with the subjects and explained the purpose of the study. The questionnaire was administered at the site of competition, when they were not busy as well room allotted to the respective teams.

To determine the need of sport orientation in competitive performance, the Sport Orientation Questionnaire prepared and developed by Daniel L. Gill and Thomas E. Deeter (1986). Sport Orientation Questionnaire yields three scores : Competitiveness, Win orientation and Goal Orientation. Each item is scored from 1 to 5 (A=5, B=4, C=3, D=2, E=1). To obtain the three scores total the response as follows: Competitiveness – total items 1,3,5,7,9,11,13,15,17,19,21,23,25 (13 items), Win orientation- total items 2, 6, 10, 14, 18, & 22 (6 items) and Goal orientation- total items 4, 8, 12, 16, 20, & 24 (6 items). The test-retest reliability for three subscales were .89 for competitiveness, .82 for win orientation and .73 for goal orientation.

RESULTS AND DISCUSSION

To assess the sport orientation in East-zone Inter-university level female Kho-kho players, the mean, standard deviation, t- ratio, f-ratio and Pearson moment coefficient correlation were computed by using SPSS 16 Version and data pertaining to this has been presented in Table 1 to 6.

TABLE 1
MEAN AND STANDARD DEVIATION OF THREE SUB-SCALES OF SPORT
ORIENTATION OF INTER-UNIVERSITY LEVEL
FEMALE KHO-KHO PLAYERS

S.NO.	Sub-scales	Mean	Standard deviation
1.	Competitiveness	58.90	6.07
2.	Win orientation	25.66	3.54
3.	Goal orientation	27.03	2.99

The mean scores of three sub-scales of sport orientation of East zone Inter-university level female Kho-Kho players have been depicted in figures 1.

TABELE 2
ANALYSIS OF VARIANCE FOR SU-SCALES OF SPORT ORIENTATION OF
INTER-UNIVERSITY LEVEL FEMALE KHO-KHO PLAYERS

Source of Variance	df	Sum of Squares	Mean Square	F-Value
Between Groups	2	73305.22	36652.612	2831.30*
Within Groups	342	4427.29	12.95	

*Significant at .05 level., $F_{.05}(2, 342) = 3.03$.

From Table 2, It is evident that the statistically significant difference existed among inter-university level female Kho-Kho players on sport orientation, as the obtained F-value of 2831.30 was much higher than the required $F_{.05}(2, 342) = 3.03$.

As the F-ratio was found to be significant, Scheffe's Test of Post-hoc comparison was applied to study the significance of differences among Inter-university level women Volleyball players on five dimensions of leader behaviour of preferred leadership and the data pertaining to this have been presented in Table 3.

TABELE 3
SINGNIFICANCE OF DIFFERENCES AMONG INTER-UNIVERSITY LEVEL
FEMAL KHO-KHO PLAYERS BETWEEN ORDERED PAIRED
MEANS ON SUB-SCALES OF SPORT ORIENTATION

Competitiveness	Win orientation	Goal orientation	Paired mean difference	Confidence Interval
55.98	24.76	-	31.21*	1.17
55.98	-	25.37	30.61*	
-	24.76	25.37	0.61	

*Significant at .05 level.

It is quite obvious from the table 3, that there were significant differences on sport orientation among Inter-university level female Kho-Kho players between competitiveness – win orientation followed by goal orientation, as the paired mean differences of 31.21 and 30.61 respectively were much higher than the confidence interval (C.I.) of . But the mean differences between win orientation – goal orientation was not significant at 0.05 level, as the confidence interval of 0.443 was less than the mean differences of 0.61.

TABELE 4
MEAN AND STANDARD DEVIATION OF THREE SUB-SCALES OF SPORT
ORIENTATION OF HIGH AND LOW ACHIEVER FEMALE KHO-KHO
PLAYERS OF INTER-UNIVERSITY LEVEL

S.N0.	Sports orientation	High achiever (N=46)		Low achiever (N=69)	
		M	SD	M	SD
1.	Competitiveness	57.13	3.30	54.26	6.28
2.	Win orientation	25.26	2.77	24.02	2.51
3.	Goal orientation	25.41	2.49	25.30	3.03

The mean scores of three sub-scales of sport orientation of high and low achiever East-zone Inter-university level female Kho-Kho players have been depicted in figures 2 to 4.

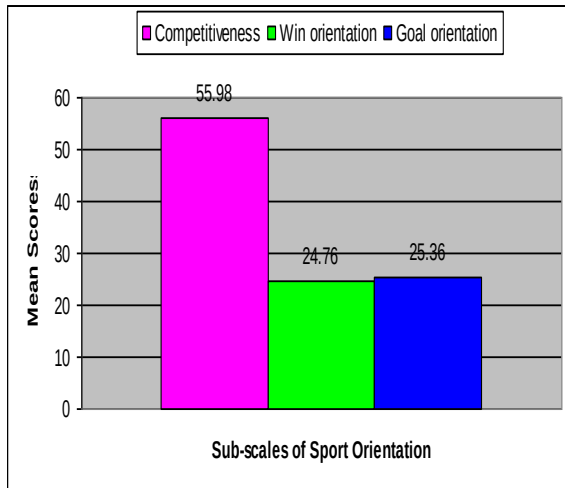


Fig. 1: Mean Scores of Three subscales of Sport Orientation of Interuniversity Level Female Kho-Kho Players

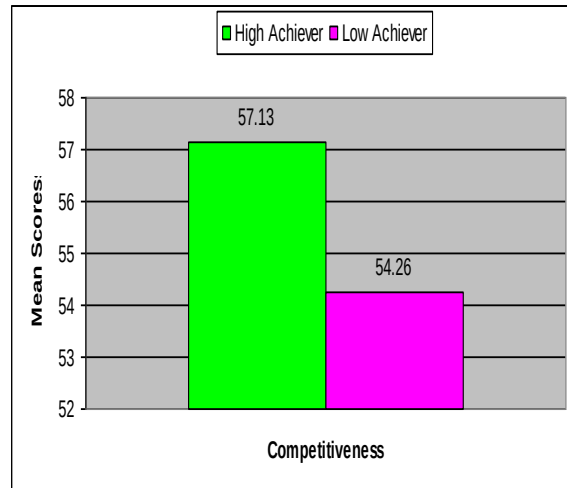


Fig.2: Mean Scores of Competitiveness of High and Low Achiever Interuniversity Level Female Kho- Kho Players

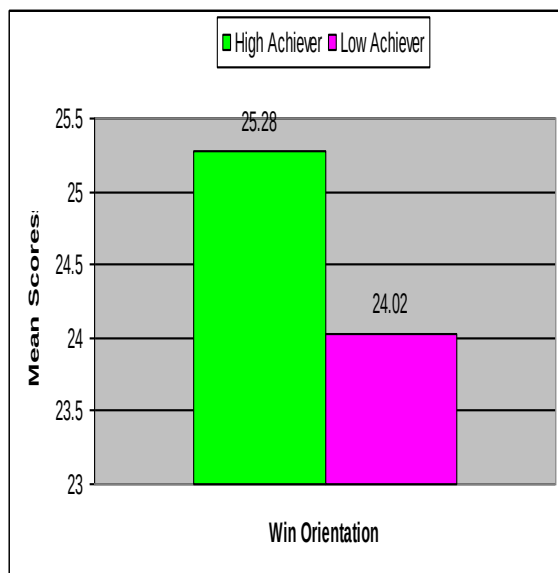


Fig. 3: Mean Scores of Win Orientation of High and Low Achiever Interuniversity Level Female Kho-Kho Players

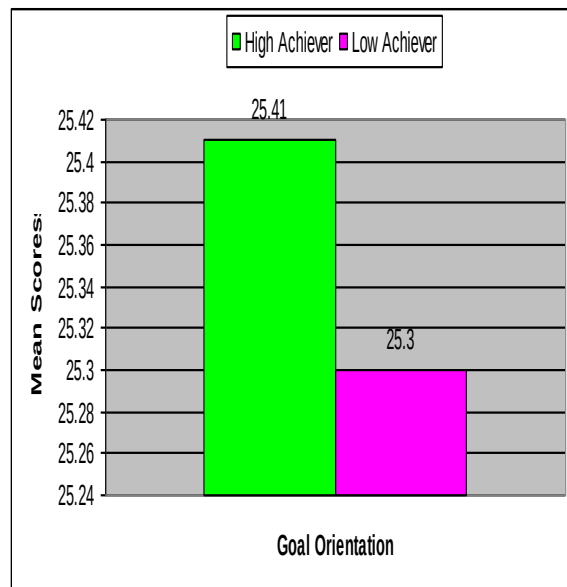


Fig.4: Mean Scores of Goal Orientation of High and Low Achiever Interuniversity Level Female Kho- Kho Players

TABELE 5
SIGNIFICANCE OF DIFFERENCES BETWEEN MEAN SCORES OF INTER-UNIVERSITY LEVEL HIGH AND LOW ACHIEVER FEMALE KHO-KHO PLAYERS ON THREE SUB-SCALES OF SPORT ORIENTATION

Sub-scales	Achievement levels	Mean	MD	σ DM	t-ratio
Competitiveness	High achiever	57.13	2.87	0.89	3.19*
	Low achieve	54.26			
Win orientation	High achiever	25.26	1.24	0.51	2.44*
	Low achiever	24.02			
Goal orientation	High achiever	25.41	0.11	1.17	0.19
	Low achiever	25.30			

*Significant at .05 level, $t_{.05}(113) = 1.98$

It is evident from table 5, that there were statistically significant differences between the high and low achiever inter-university level female Kho-Kho players in competitiveness and win orientation sub-scales of sport orientation, as the obtained t-values of 3.19 and 2.44 respectively were higher than the required t-value of $t_{.05}(113) = 1.98$. But the insignificant difference existed between high and low achiever inter-university level female Kho-Kho players in their goal orientation sub-scale of sport orientation, as the obtained t-value of 0.19 was less than the required t-value to be significant

TABLE6
INTER - RELATIONSHIP AMONG SUB-SCALES OF SPORT ORIENTATION IN EAST-ZONE INTER-UNIVERSITY LEVEL KHO-KHO PLAYERS

Sub-scales	Correlations
Competitiveness V/S Win orientation	.238*
Competitiveness V/S Goal orientation	.279*

*Significant at .05 level, $r_{.05}(228) = .138$

It is clear evident from Table 4 that the significant correlation existed between competitiveness and win orientation followed by goal orientation in east-zone inter-university level female Kho-Kho players, as the obtained Pearson's Product Moment Correlation Coefficients r of .238 and .279 respectively were higher than the required $r_{.05}(228) = .138$.

DISCUSSION

Analysis of descriptive data on three sub-scales of sport orientation indicate that Inter-university level female Kho-Kho players were found to have more sport specific achievement orientation, moderately goal orientation and low win orientation as exhibited by the different universities Kho-Kho players of East-zone region.

Results of ANOVA on three sub-scales of sport orientation indicated the significant differences among inter-university level Kho-Kho players of different universities of East-

zone region. It shows that the female Kho-Kho players are competitive, but more goal oriented and less win oriented. Such differences in competitive behaviour reflect personality or individual differences in achievement motivation and more specifically, competitiveness. Female Kho-Kho players as a group show these orientations, there are wide variation among teams, especially in the relative emphasis on individual performance and win / loss outcomes. This was partially supported by Gill and Martens (1987), as they indicated in their investigation that athletes score higher on sport specific achievement orientation (Competitiveness) and the were not high on win orientation.

The Scheffe's Test of Post-hoc comparison also indicated the significant differences on sport orientation among Inter-university level female Kho-Kho players between competitiveness and win orientation followed by goal orientation and insignificant difference between win orientation and goal orientation. Which may be due influence of competitiveness on specific achievement behaviour within sport, exercise setting and situational factors.

When the high and low achiever inter-university level female Kho-Kho players were compared together on three sub-scales of sport orientation, they had significant differences in competitiveness and win orientation. Which may be due competitive behaviour and anxiety, group support, choice to enter competition sport situation and specific achievement behaviour. It showed that the low achiever Kho-Kho players were found to have more competitiveness, win and goal orientation than high achiever inter-university level female Kho-Kho players of different universities of East-zone region. But the high and low achiever female players had similarity in goal orientation. This was partially supported by Gill and Deeter, (1986).

The competitiveness of the East-zone inter-university level female Kho-Kho players had significant correlation with win and goal orientation sub-scales of sport orientation. This was also supported by Gill, (1993)

CONCLUSIONS

1. Dissimilarity was found among Inter-university level female Kho-Kho players of different universities of East-zone region in their sport orientation.
2. Sport specific form of achievement orientation (Competitiveness) was found in greater amount than other two sub-scales of sport orientation i.e. win and goal orientation among east-zone Inter-university level female Kho-Kho players.
3. Statistically significant correlation exhibited by east-zone Inter-university level female Kho-Kho players between competitiveness and win orientation followed by goal orientation sub-scale of sport orientation.
4. Significant differences were found between the high and low achiever inter-university level female Kho-Kho players in competitiveness and win orientation sub-scales of sport orientation, but similarity was seen in goal orientation between high and low achiever female Kho-Kho players.
5. Sport orientation among high achiever inter-university level female Kho-Kho players was higher in comparison of low achiever female Kho-Kho players of inter-university level.

BIBLIOGRAPHY

- Duda, J. L.** “ Toward a Developmental Theory of Children’s Motivation in Sport” Journal of Sport Psychology 13 (1987) : 130-145.
- Gill, Diane L.** “Competitiveness and Competitive Orientation in Sport” Cited by R. N. Singer, M. Murphy and L. Keith Tennat, Handbook of Research on Sport Psychology (New York : Mac Millan Publishing Company, 1993), P. 314-319.
- Gill Daniel L. and Deeter, Thomas E.** “ Development of Sport Orientation Questionnaire” Research Quarterly for Exercise and Sport, 59 : 5 (1986) : 191-202.
- Gill, D. L. and Martens R.** “ The Role of Task Type and Success-failure in Group Competition” International Journal of Sport Psychology 8 (1987) : 160-177.
- Martens R.,** “Competitiveness and Sport” Paper presented at the International Congress of Physical Activity Science , Proceedings (Quebec City 1976), p. 326.
- Martens, R.** Sport Competition Anxiety (Champaign : IL Human Kinetics Publication, 1977), p. 326
- Nicholls, J.** “Achievement Motivation: Conception of Ability, Subjective Experience, Task Choice, and Performance” Psychological Review, 91 (1984) : 328-346.
- Scalan, T. K.** “The Effect of Success-failure on the Perception of Threat in Competitive Situation” Research Quarterly, 48 (1977) : 111-153.
- Spence, J. T. and Helmreich, R. L.** “ Achievement related Motives and Behaviour Cited In J. T. Spence (ED). Achievement and Achievement Motives (San Francisco : W. H. Freeman & Company , 1983) , pp. 67-74.
- Singer, R. N., Murphy M. and Tennat, Keith L.** Handbook of Research on Sport Psychology (New York : Mac Millan Publishing Company, 1993), P. 314-313.
- Vealey, R. S.** “ The Conceptualization of Sport-confidence and Competitive Orientation : Preliminary Investigation and Instrument” Journal of Sport Psychology, 8 (1986) : 221-246

A COMPARISON OF PREFERRED LEADERSHIP BEHAVIOUR OF INTERUNIVERSITY LEVEL MALE AND FEMALE JUDO ATHLETES

Dr. R. S. Pawar* & Yuvraj Shrivastava**

ABSTRACT

The purpose of this study was to investigate and compare the leadership preferences of inter- university level male and female judo athletes. For this purpose, two hundred sixty four (Males=140, females =124) of inter-university level judo athletes representing their respective university in inter-university competitions were selected to serve as subjects for this study. The subjects were in age group of 18 to 23 years. The subjects were selected from among the male and female Judo athletes taken part in All India Inter-University competitions during the 2007-2008 session. The leadership scale for sports development and prepared by P. Chelladuri (1994) was used to measure the preferred leader behaviour of inter-University level male and female Judo athletes on five dimension of leader behaviour. To find out the significance of difference between means scores of preferences on leader behaviour dimension of male and female Judo athletes, t-ratio was computed. The results of the study revealed that inter – university level male and female judo athletes exhibited different preferences on five dimensions of leader behaviour. Both sex judo athletes preferred their coaches more on training and instruction followed by positive feedback, social support , democratic behaviour and autocratic behaviour.

Keywords: Preferences, Judo athletes, Gender, interuniversity level

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INTRODUCTION

Judo is a tremendous and dynamic combat sport that demands both physical prowess and great mental discipline . From a standing position, it involves techniques that allow you to lift and throw your opponents onto their backs . on the ground , it includes techniques that allow you to pin your opponents down to the ground , control them , and apply various chokeholds of joint locks until submission .

The word judo consists of two Japanese characters , ju , which means “gentle “, and do , which means “the way”. Judo, therefore , literally means the way of gentleness. Although the gentleness may not be immediately apparent to new comes who see bodies flying through the air and people pinned to the ground. In the next chapter, we will see how the techniques of Judo are based on giving in rather than fighting back. It is this principle of gentleness, or yawara (which is the same character as the Ju in Judo), on which all judo techniques are based. Judo has its own culture , systems , heritage, customs , and tradition , moreover, the principles of gentleness are carried from the practice mats and into most students lives , in their interaction with their friends , family , work colleagues , and even strangers. Judo is a vigorous and demanding physical activity. the practice of judo techniques helps people develop basic and fundamental physical fitness in a number of ways , such as the development of strength , flexibility , agility , speed , dynamic and static balance , explosive power , and endurance . the practice of active attack and defense helps develop reaction time coordination, and overall physical self – confidence . Judo students become physically bigger, stronger, and faster through their practice of judo. Not only does judo produce tremendous gains in overall physical and athletic; judo students learn the specific skills and techniques of judo. They learn a variety of techniques in order to throw their opponents to the ground with force, speed and control. While judo students are often exposed to many of these types of throwing techniques in their judo careers, they usually master only a handful and a handful is generally all that is needed to be successful in contemporary judo competitions.

From the research report of Mr. Chen, he indicated the behaviour attitude and value standard of a leader can influence athlete’s imitating behaviour (Cost, Salmela and Russell, 1995). The reason that a coach can influence athletes is the job of coach is much more diversity, he/she needs to react quick when they face different problems come across to him/her (Yuen, 1997). Generally speaking coaches, training ad teaching method both can influence the emotion management of athletes (Chen, 1998).

According to the part report, it indicated that a coach should be demanding, well organized, behaves well and highly achieved in the sport field (Ogilvie & Tutko, 1966, Sage, 1973). Further, historian named a coach as a new professional manager because they think the skills improvement from athletes came from the contribution of a coach.

The purpose of study was to compare and analyses the coach leadership about preference from male and female judo athletes . It was also hypothesized that there may be significant difference between inter-university level male and female judo athletes on five dimensions of preferred leadership behaviour .

METHODOLOGY

Selection of Subjects:

Two hundred sixty four (Males =140, Females =124) of inter – university level judo athletes representing their respective university in All India inter-university competitions and

who volunteered to participate in this study , were selected to serve as subjects for this study. The subjects were in age range of 18 to 23 years . The subjects were selected from amongst the male and female judo athletes, who have taken part in All India Inter – university competitions during the session.2007-2008.

Instrumentation:

The leadership scale for sports development and prepared by P. Chelladuri (1994) was used to measure the preferred leader behaviour of inter-University level male and female Judo athletes on five dimensions of leader behaviour.

RESULTS AND DISCUSSION

To asses the preferred leadership behaviour of Inter- university level male and female Judo athletes, the means, standard deviations, Analysis of variance (ANOVA) were computed to find out the significant of differences between means of male and female Judo athletes on various determined factor of preferred leadership behaviour. Wherever, the F-ratio was found significant, Scheffe's Test of post –hoc analysis was applied to find out significance of difference between ordered paired means. The level of significant was set at.05 level and data pertaining to this have presented in Table 1-6

TABLE 1
DESCRIPTIVE STATISTICS OF PREFERENCES ON FIVE DIMENSION OF
LEADER BEHAVIOUR OF INTER UNIVERSITY LEVEL MALE AND
FEMALE JUDO ATHLETES

Leader Behaviour dimensions	Male (N=140)		Female (N=124)	
	M	SD	M	SD
Training & Instruction	4.352	0.383	4.442	0.349
Social support	3.813	0.539	3.824	0.626
Positive Feedback	4.243	0.569	4.251	0.728
Autocratic behaviour	3.057	0.886	2.858	0.838
Democratic behaviour	3.643	0.812	3.544	0.625

The mean scores of five dimensions of leader behaviour as preferred by male and female judo athletes of inter – university level have been depicted in figures 1.

TABLE -2
ANALYSIS OF VARIANCE FOR PREFERRED LEADERSHIP OF INTER –
UNIVERSITY MALE ATHLETES OF JUDO ATHLETE

Source of Variance	df	Sum of Square	Mean Squares	F-value
Between Groups	4	196.884	49.221	20.934*
Within Groups	695	1634.087	2.351	
Total	699	1830.970		

*Significant at .05 level., $F_{.05}(4,695) = 2.39$.

From Table 2, It is evident that the statistically significant difference existed among inter-university male judo athletes on preferred leadership was very high as the obtained F-value of 20.934 was much higher then the required $F_{.05}(4,695) = 2.39$.

As the F – ratio was found to be significant , Scheffe's Test of post-hoc comparison was applied to study the significant of differences among inter –university male judo athletes on five dimensions of leader behaviour of preferred leadership and the data pertaining to this have been presented in Table 3.

TABLE -3
SIGNIFICANCE OF DIFFERENCES AMONG INTER- UNIVERSITY MALE JUDO
ATHLETES BETWEEN ORDERED PAIRED MEANS ON FIVE DIMENSIONS
OF PREFERRED LEADERSHIP

Mean Scores						
TI	SS	PF	AB	DB	Paired Mean Difference	C.I.
4.352	3.813	-	-	-	.439*	0.005
4.352	-	4.243	-	-	.109*	
4.352	-	-	3.057	-	1.295*	
4.352		-	-	3.643	.709*	
-	3.813	4.243	-	-	.430*	
-	3.813	-	3.057	-	.756*	
-	3.813	-	-	3.643	.070*	
-	-	4.243	3.057	-	.186*	
-	-	4.243	-	3.643	.600*	
-	-	-	3.057	3.643	.586*	

*Significant at .05 level

It is quite obvious from the Table 3, that there were significant differences on preferred leadership among inter –university male judo athletes between training and instruction – social support followed by positive feedback , autocratic behaviour and democratic behaviour ; social supports – positive feedback followed by autocratic behaviour followed by democratic and autocratic behaviour democratic behaviour as the paired mean difference of .439, .109,1.295,.709,.430,.756,.070,.186,.600,and .586 respectively were much higher than the confidence interval (C.I.) of 0.005.

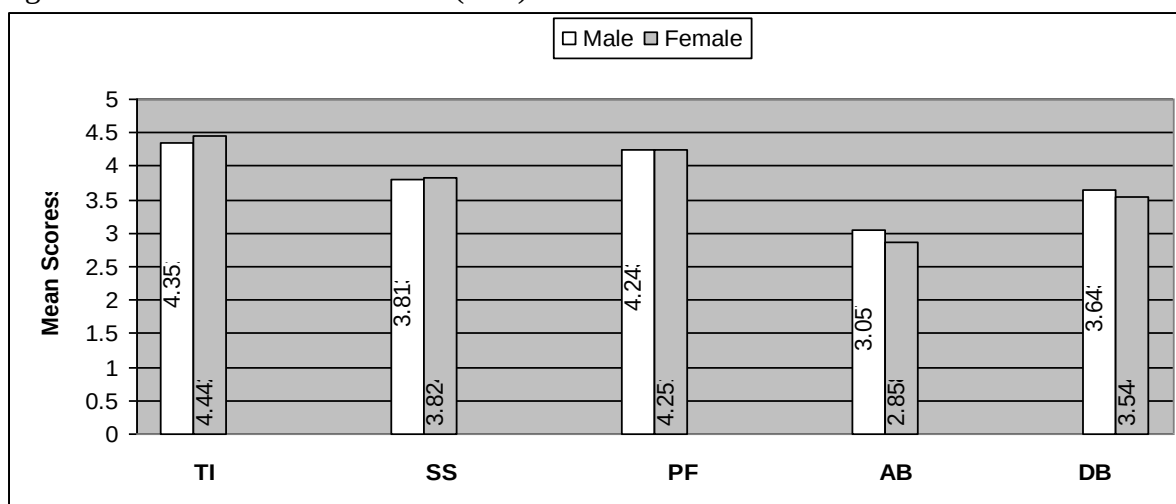


Figure 1. Mean Scores of Inter-university Level Male and Female Judo Athletes on Five Dimensions of Preferred Leadership Behaviour..

TABLE-4

ANALYSIS OF VARIANCE FOR PREFERRED LEADERSHIP OF INTER UNIVERSITY FEMALE JUDO ATHLETES

Source of Variance	df	Sum of Square	Mean Squares	F-value
Between Groups	4	194.447	48.612	112.603*
Within Groups	615	265.502	0.432	
Total	619	309.064		

*Significant at .05 level , $F_{.05}(4,615) = 2.39$

From Table 4, It is evident that the statistically significant difference between existed among inter-university female Judo athletes on preferred leadership was very high as the obtained F-value of 112.603 was much higher than the required $F_{.05}(4,615) = 2.39$.

As the F-ratio was found to be significant, Scheffe's Test of post-hoc comparison was applied to study the significance of differences among inter-university female Judo athletes on five dimensions of leader behaviour of preferred leadership and the data pertaining to this have been presented in table 5.

TABLE- 5

SIGNIFICANCE OF DIFFERENCES AMONG INTER-UNIVERSITY FEMALE ATHLETES OF JUDO BETWEEN ORDERED PAIRED MEANS ON FIVE DIMENSIONS OF PREFERRED LEADERSHIP

Mean Scores						
TI	SS	PF	AB	DB	Paired Mean Difference	C.I.
4.442	3.824	-	-	-	.598*	0.032
4.442	-	4.251	-	-	.191*	
4.442	-	-	2.858	-	1.584*	
4.442	-	-	-	3.544	.898*	
-	3.824	4.251	-	-	.427*	
-	3.824	-	2.858	-	.966*	
-	3.824	-	-	3.544	.270*	
-	-	4.251	2.858	-	.393*	
-	-	4.251	-	3.544	.707*	
-	-	-	2.858	3.544	.686*	

*Significant at .05 level

It is quite obvious from the table 3, that there were significant differences on preferred leadership among inter –university male judo athletes between training and instruction – social support followed by positive feedback , autocratic behaviour and democratic behaviour ; social supports –positive feedback followed by autocratic behaviour followed by democratic and autocratic behaviour democratic behaviour as the paired mean difference of .598,.191,.1.584,.898,.427,.966,.270,.393,.707 and .686 respectively were much higher than the confidence interval (C.I.) of 0.032.

TABLE -6

SIGNIFICANCE OF DIFFERENCES BETWEEN MEAN SCORES OF INTER-UNIVERSITY MALE AND FEMALE JUDO ATHLETES ON LEADER BEHAVIOUR DIMENSIONS OF PREFERRED LEADERSHIP.

Leader behaviour dimensions	Sex	Mean	MD	DM	t-ratio
Tranining & Instruction	Male	4.352	.090	.045	2.000*
	Female	4.442			
Social support	Male	3.813	.011	.071	0.154
	Female	3.824			
Positive Feedback	Male	4.243	.008	.072	0.111
	Female	4.251			
Autocratic Behaviour	Male	3.057	.199	.106	1.877
	Female	2.858			
Democratic Behaviour	Male	3.643	.099	.090	1.100
	Female	3.544			

*Insignificant at .05 level,. t.05 (262)=1.97

It is evident from table 6,that there was statistically significant difference between the preferences of inter-university level male and female Judo athletes on training and instruction dimensions of leader behaviour, as the obtained t-value of 2.00 was higher than the required t-value of t.05(262)=1.97

DISCUSSION

Findings of descriptive data of Inter-university level male and female Judo athletes on five dimensions of preferred leadership behaviour indicated that male Judo athletes preferred more automatic behaviour and democratic behaviour from their coaches than did female respondents. In case of female Judo athletes, they preferred more training and instructions, social support and positive feedback and democratic behaviour from their coaches in comparison of male Judo athletes.

The results of one way analysis of variance (ANOVA) for Inter-university level male athletes of cross country on five dimensions of preferred leadership behaviour expressed significant differences among male Judo athletes in their preferences for preferred leadership which may be due to variation in practice method, coaching style, and reinforcement. The scheffe's Test of Post-hoc comparisons showed that male Judo athletes preferred more training and instructions behaviour in comparison of other dimensions of preferred leadership, but the significant differences exhibited by male Judo athletes in their preferences between training and instruction social support followed by positive feedback, autocratic behaviour and democratic behaviour ,social supports – positive feedback followed by

autocratic behaviour, democratic behaviour, positive feedback – autocratic behaviour followed by democratic behaviour and autocratic behaviour democratic behaviour.

CONCLUSIONS

Within the limitation of present study , the following conclusions are enumerated:

1. Inter-university level male and female judo athletes exhibited different preferences on five dimensions of leader behaviour.
2. Inter-university level male and female judo . athletes preferred their coaches more on training and instruction followed by positive feedback, social support, democratic behaviour and autocratic behaviour.

RECOMMENDATIONS

The research is mainly focuses on the domestic athletes, so, the further research can adapt about comparing with international athletes. The research can adapt more analysis like result-analysis according to coaches personality and understand the difference of athletes feeling an body energy. It can be looked as important direction for the further research.

BIBLIOGRAPHY

- Bucher, Charles A.** Foundation of physical education, London : C.V. Mosby co. 1982.
- Carron, A.V.** Social psychology of sports. New York Movement publication, 1980.
- Chelladuri, P.** Manual for the leadership Scale for sports. The Ohio state University. 1994.
- Coste, J., Salmela J. H. and Russell. S.** “The knowledge of high-performance gymnastics coaches : Methodological framework”. The sports psychology. 17 (1995) : 1-17.
- Ogilvie, B. and Tukto T.** “Problem athletes and how to handle them” London : Pelham Books.1966.
- Signer R. N. Murphy M. and Keith Tennat L.** Hand books o research on sports psychology New York : McMillan Publishing co ; 1993.
- Williams, Jean M.** Applied sport psychology: Personal growth to peak performance , California : Mayfield publishing company, 1993
- Yuen, Haoi-Chi.** “The influence and recognition of the coaches leadership towards to athlete’s background characteristics, periodical of athletic research in university and college”. Chinese Taipei University sports Federation proceeding of conference on physical education, 1997, pp.325-331.

A STUDY OF ATTITUDE OF THE SCHOOL PRINCIPALS TOWARDS PHYSICAL EDUCATION PROGRAMME

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ABSTRACT

The purpose of this study was to determine the opinion of principals towards the physical education programme in Chhattisgarh and to find out their opinions agree/disagree/undecided if any. The study was conducted by administering a questionnaire to the Principals of State Schools of Bilaspur district. The study was restricted to the principals of sixty different schools of Bilaspur district. The investigator prepared a questionnaire comprising of 33 statements based on a very simple pattern viz, agree/disagree/undecided which covered 6 aspects i.e Physical aspect, Educational aspect, social aspect, mental aspect, economical aspect, general aspect of physical education. Survey method was used to assess the attitude of principals in state schools of bilspur district. No specific statistics were involved in the study. The research scholar put the collected data in tables for assessment attitude towards physical education. only the frequency and percentage were calculated. The results of the study revealed that a majority of the principals have a favourable opinion towards all the aspects of physical education. They are of the opinion that the children who actively participate in physical education programme are obedient, disciplined and well behaved. They have also a highly favourable opinion towards physical education because it promotes physical health and fitness, mental maturity and alertness.

Key words: Attitude, Physical Education, Health, Fitness.

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INTRODUCTION

Physical education is mainly focused on human movement. It provides to the people with increasing control over their own performance capabilities. In this process, the mind also gets disciplined to the requirement and aptitude of its body in turn can give alertness and expressions to the mind. Physical education seeks to achieve an optimal functioning of all systems of the body in harmonic coverage with a discerning mind (Mazumdar, 1916).

Physical education is that part of education which proceeds by means of or predominantly, through movement, it is not same separate, partially related field. This significant means of education, furnishes one's angle of composed of many components, inter related functional units, rather than of several distinctly compartmentalized facilities. The physical, mental and social must all be considered together. Physical education when well taught can contribute more of the goal of general education than can any other school subject, not more to each goal than any other subject, but more to all goal than any other school subject (Voltoner et.al.,1979).

Attitudes are ideas or feeling that one may have about something as a result of past experience or as a result of imaginative likes and dislikes. When conditions or change in the environment occur, whether for better or worse, we can usually expect to see a change in attitudes of students towards the physical education activity program as well as towards individual activities within the program (Johnson & Nelson, 1982).

Therefore, in measuring the attitude of the head of the institution towards physical education, a survey of this type was essential as the study would be useful not only to find out the attitudes of principals of school but also the impact it has over the physical education teachers and the students regarding their involvement in the physical education programme. So, if the principal has a positive attitude towards physical education it will play an important role in development of physical education programme in the schools, hence the investigator has taken up the present study.

METHODOLOGY

Sources of Data:

Sixty state schools of Chhattisgarh. belong to Bilaspur Region in which a total of forty state schools were having physical education teacher whereas, rest of state schools were not having physical education teacher, were selected as the sample for the study.

Construction of the Questionnaire:

The questionnaire of 33 statements was finalized after conducting a pilot study keeping in view the various aspects of physical education i.e.. Physical aspect, Education aspect, Social aspect, Mental aspect, Economic aspect, and General aspect with the help of physical education experts. The questionnaire was arranged in a logical order and each statement was recorded clearly to enable the subjects to understand and answer those statements without much difficulty. Great care was taken to frame each statement in such a manner that it was precise and without any ambiguity. Provision was made on the right side of each statement to note the attitude of the respondent by ticking (✓) one of the responses viz; Agree/ Disagree/ undecided respectively.

Administration of Questionnaire:

The questionnaire were distributed to the principals of the sixty state schools of Jabalpur region (M.P.) personally by the scholar with the request that they would give correct and accurate answer. and send the completed questionnaires to the investigator by post at their earliest convenience. In addition to this the investigator had interviews with the various Principal and also discussed with then their problems in the field of physical education. The responses were collected in the same way. The total number of 60 questionnaires were collected from the concerned respondents back.

RESULTS AND DISCUSSION

The responses obtained from the questionnaire survey were carefully and systematically compiled with the frequencies of the responses for each of the question with specific categorizations. The percentage analysis of the surveyed information of sixty state schools with the frequencies and percentages are presented in Tables 1 to 33.

TABLE 1

STATEMENT : PHYSICAL EDUCATION IS MAINLY CONCERNED WITH MUSCLE BUILDING.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	52	86.67
2.	Responded in Negative	8	13.33
3.	Responded in undecided	Nil	Nil

Table 1 indicates that out of the 60 respondents, 86.67 % were of the view that physical education is mainly to do with physical development and 13.33 % of them did not agree with the statement.

TABLE 2

STATEMENT: PHYSICAL EDUCATION HELPS IN IMPROVING PHYSICAL FITNESS.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	55	91.67
2.	Responded in Negative	5	8.33
3.	Responded in undecided	Nil	Nil

Table 2 indicates that out of the 60 respondents 91.67% were of the view that physical education helps in improving the physical fitness and 8.33% of them did not agree with the statement.

TABLE 3

STATEMENT : REGULAR PHYSICAL EDUCATION IS ESSENTIAL FOR PROPER GROWTH AND DEVELOPMENT.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	56	93.33
2.	Responded in Negative	4	6.33
3.	Responded in undecided	Nil	Nil

As seen in Table 3 that out of the 60 respondents 93.33 % were of the view that regular physical education is essential for proper growth and development and 6.33 % of them did not agree with the statement.

TABLE 4
STATEMENT : PHYSICAL EDUCATION IS MAINLY TO DO WITH PHYSICAL DEVELOPMENT.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	21	35
2.	Responded in Negative	39	65
3.	Responded in undecided	Nil	Nil

Table 4 proves that 35 % pf the respondents were in the favour that physical education is mainly to do with physical development and 65% respondents were not in favour of the statement.

TABLE 5
STATEMENT : MUSCULAR DEVELOPMENT IS POSSIBLE WITHOUT PHYSICAL EDUCATION

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	49	81.67
2.	Responded in Negative	11	18.33
3.	Responded in undecided	Nil	Nil

Table 5 reveals that 81.67% respondents were of the view that muscular development is possible without physical education and 18.33% of them did not agree with the statement.

TABLE – 6
STATEMENT : NEURO MUSCULAR COORDINATION CAN BE DEVELOPED THROUGH PHYSICAL EDUCATION.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	49	83.33
2.	Responded in Negative	11	16.66
3.	Responded in undecided	Nil	Nil

As seen in Table 6 that out of the 60 respondents 49 were of the view that neuromuscular coordination can be developed through physical education and 11 of them did not agree with the statement.

TABLE 7
STATEMENT : PHYSICAL EDUCATION PROGRAMME HELPS AN INDIVIDUAL TO LEARN ACTIVITY WHICH HAS A CARRY OVER VALUE IN LATER LIFE.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	49	81.66
2.	Responded in Negative	11	18.33
3.	Responded in undecided	Nil	Nil

Table 7 indicates that out of 60 respondents 49 were of the view that physical education programme helps an individual to learn activity which has a carry over value in later life and 11 of them did not agree with the statement.

TABLE 8
STATEMENT : PHYSICAL EDUCATION CONTRIBUTES TO TOTAL
EDUCATION OF THE CHILD.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	52	86.67
2.	Responded in Negative	8	13.33
3.	Responded in undecided	Nil	Nil

Table 8 indicates that 86.67 % respondents were of the view that regular physical education contributes to total education of the child and 13.33 % of them did not agree with the statement.

TABLE 9
STATEMENT : THE CHILDREN WHO ACTIVELY PARTICIPATE IN
PHYSICAL EDUCATION PROGRAMME ARE DISOBEDIENT.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	12	20
2.	Responded in Negative	48	80
3.	Responded in undecided	Nil	Nil

It is evident from Table 9 that 20 % respondents were in the favour that the children who actively participate in physical education programme are disobedient and 80% respondent were not in the favour of the statement

TABLE 10
STATEMENT: INVOLVEMENT IN PHYSICAL EDUCATION PROGRAMME
HINDERS ACADEMIC ACHIEVEMENT.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	38	63.33
2.	Responded in Negative	22	36.67
3.	Responded in undecided	Nil	Nil

As seen in Table 10 that 63.33% respondents were of the view that involvement in physical education programme hinders academic achievement and 36.67% of them did not agree with the statement.

TABLE 11
STATEMENT: ALL STUDENTS SHOULD GET A BASIC KNOWLEDGE OF
PHYSICAL EDUCATION AS A PART OF GENERAL EDUCATION.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	52	86.66
2.	Responded in Negative	8	13.33
3.	Responded in undecided	Nil	Nil

Table 11 indicates that out of 60 respondents 52 were of the view that all students should get a basic knowledge of physical education as a part of general education and 8 of them did not agree with the statement.

TABLE 12
STATEMENT: OTHER ACADEMIC SUBJECTS ARE SUFFICIENT ENOUGH TO TAKE CARE OF EVERY ASPECT OF CHILD'S DEVELOPMENT.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	18	30
2.	Responded in Negative	42	70
3.	Responded in undecided	Nil	Nil

Table 12 proves that 30% respondents were in the favour that other academic subjects are sufficient enough to take care of every aspect of child's development, 70 % respondent were not in the favour of the statement.

TABLE 13
STATEMENT: PHYSICAL EDUCATION PROMOTES BETTER INTER PERSONAL RELATIONSHIP.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	56	93.33
2.	Responded in Negative	4	6.67
3.	Responded in undecided	Nil	Nil

As seen in Table 13 that 93.33% respondents were of the view that physical education promotes better inter personal relationship, 6.67% of them did not agree with the statement.

TABLE 14
STATEMENT: PHYSICAL EDUCATION HELPS TO IMPROVE SOCIAL STATUS AMONG THE STUDENTS

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	29	48.33
2.	Responded in Negative	15	25
3.	Responded in undecided	16	26.67

Table 14 indicates that out of 48.33% respondents were of the view that physical education helps to improve social status among the students, 25% of them did not agree with the statement and 26.67 of them were undecided.

TABLE 15
STATEMENT: PHYSICAL EDUCATION PROGRAMME DEVELOPS SPORTSMEN QUALITY IN STUDENTS

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	37	61.67
2.	Responded in Negative	23	38.33
3.	Responded in undecided	Nil	Nil

Table 15 indicates that 61.67 % respondents were in the favour that physical education programme develops sportsmen quality in students, 38.33 % respondents were not in the favour of the statement.

TABLE 16
STATEMENT: PHYSICAL EDUCATION PROGRAMME DEVELOPS LEADERSHIP QUALITY IN STUDENTS

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	56	93.33
2.	Responded in Negative	4	6.67
3.	Responded in undecided	Nil	Nil

Table 16 indicates that 93.33% of respondents were of the view that physical education programme develops leadership quality in students and 6.67% of them did not agree with the statement.

TABLE 17
STATEMENT: PHYSICAL EDUCATION MAKES ONE A COOPERATIVE INDIVIDUAL.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	46	76.67
2.	Responded in Negative	14	23.33
3.	Responded in undecided	Nil	Nil

Table 17 proves that 76.67 % respondents were in the favour that physical education makes one a cooperative individual, 23.33 % respondents were not in the favour of the statement.

TABLE 18
STATEMENT: BY PARTICIPATING IN PHYSICAL EDUCATION PROGRAMME BOYS AND GIRLS CAN LEARN HOW TO BEHAVE WITH PEOPLE OF OPPOSITE SEX.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	47	78.33
2.	Responded in Negative	3	5
3.	Responded in undecided	10	16.67

Table 18 reveals that 78.33 % of total respondents were of the view that by participating in physical education programme boys and girls can learn how to behave with people of opposite sex, 5% of them did not agree with the statement and 16.67% were undecided.

TABLE 19
STATEMENT: PHYSICAL EDUCATION MAKES IMPORTANT CONTRIBUTION TO MENTAL HEALTH.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	52	86.67
2.	Responded in Negative	8	13.33
3.	Responded in undecided	Nil	Nil

Table 19 indicates that 86.67 % of total respondents were of the view that physical education makes important contribution to mental health and 13.33% of them did not agree with the statement.

TABLE 20
STATEMENT: THOSE WHO PARTICIPATE IN PHYSICAL ACTIVITIES
BECOME ALERT.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	39	65
2.	Responded in Negative	11	13.33
3.	Responded in undecided	10	16.67

Table 20 proves that 65 % respondents were in the view that those who participate in physical activities become alert, 13.33 % respondents were not in the favour of the statement and 16.67 % were undecided for their response.

TABLE 21
STATEMENT: TENSION CAN BE RELEASED BY PARTICIPATING IN A
PROGRAMME OF PHYSICAL EDUCATION.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	51	85
2.	Responded in Negative	5	8.33
3.	Responded in undecided	4	6.67

Table 21 indicates that ,85% respondents were of the view that tension can be released by participating in a programme of physical education,8.33% of them did not agree with the statement and 6.67% were undecided.

TABLE 22
STATEMENT: STUDENTS WHO ARE GOOD IN PHYSICAL EDUCATION WILL
NOT BE BRIGHT IN STUDIES.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	12	20
2.	Responded in Negative	38	63.33
3.	Responded in undecided	10	16.67

Table 22 indicates that 20% respondents were of the view that students who are good in physical education will not be bright in studies, 63.33% of them did not agree with the statement and 16.67% of them were undecided.

TABLE 23
STATEMENT: PHYSICAL EDUCATION HELPS IN THE INTELLECTUAL
DEVELOPMENT OF THE STUDENTS.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	50	83.33
2.	Responded in Negative	8	13.33
3.	Responded in undecided	2	3.33

Table – 23 reveals that 83.33 % respondents were of the view that physical education helps in the intellectual development of the students, 13.33 % of them did not agree with the statement and 3.33 % of them were undecided.

TABLE 24

STATEMENT: WITHOUT SUFFICIENT FINANCES, IT IS DIFFICULT TO CARRY OUT A PROGRAMME OF PHYSICAL EDUCATION.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	49	81.67
2.	Responded in Negative	11	18.33
3.	Responded in undecided	Nil	Nil

Table 24 reveals that out of 60 respondents, 49 were of the view that without sufficient finances, it is difficult to carry out a programme of physical education and 11 of them did not agree with the statement.

TABLE 25

STATEMENT: MONEY SPENT ON PHYSICAL EDUCATION IS NOT A WASTE.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	48	80
2.	Responded in Negative	12	20
3.	Responded in undecided	Nil	Nil

Table 25 indicates that 80% respondents were in favour that money spent on physical education is not a waste and 20% of them were not in favour of the statement.

TABLE 26

STATEMENT: THE CANDIDATES WITH SPORTS BACKGROUND HAVE BETTER JOB OPPORTUNITIES.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	41	81.67
2.	Responded in Negative	9	15
3.	Responded in undecided	10	16.66

Table 26 indicates that 81.67% respondents were of the view that the candidates with sports background have better job opportunities, 15% of them did not agree with the statement and 16.66% of them were undecided for their response.

TABLE 27

STATEMENT: PHYSICAL EDUCATION IS FOR RICH PERSONS ONLY.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	11	18.33
2.	Responded in Negative	45	75
3.	Responded in undecided	4	6.67

Table – 22 exhibits that 18.33 respondents were of the view that physical education is for rich persons only, 75% of them did not agree with the statement and 6.67% of them were undecided.

TABLE – 28
STATEMENT: EXISTING PROGRAMME OF PHYSICAL EDUCATION IS
INADEQUATE BECAUSE OF LACK OF FINANCES.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	49	81.67
2.	Responded in Negative	11	18.33
3.	Responded in undecided	Nil	Nil

Table 28 indicates that out of 81.67 % respondents were of the view that existing programme of physical education is inadequate because of lack of finances and 18.33 % of them did not agree with the statement.

TABLE 29
STATEMENT: PHYSICAL EDUCATION IS A SOURCE OF FUN AND
ENJOYMENT.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	52	86.67
2.	Responded in Negative	8	13.33
3.	Responded in undecided	Nil	Nil

Table29 indicates that 86.67% respondents were of the view that physical education is a source of fun and enjoyment existing and 13.33% of them did not agree with the statement.

TABLE 30
STATEMENT: PHYSICAL EDUCATION PROVIDES GOOD OPPORTUNITIES
FOR ALL ROUND DEVELOPMENT OF THE PERSONALITY.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	57	95
2.	Responded in Negative	3	5
3.	Responded in undecided	Nil	Nil

Table 30 indicates that 95% respondents were of the view that physical education provides good opportunities for all round development of the personality and 5% of them did not agree with the statement.

TABLE 31
STATEMENT: A CERTAIN AMOUNT OF COMPULSION IS REQUIRED TO
MAKE STUDENTS PARTICIPATE IN PHYSICAL EDUCATION CLASSES.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	49	81.67
2.	Responded in Negative	5	8.33
3.	Responded in undecided	6	10

Table 31 shows that 81.67 % respondents were of the view that a certain amount of compulsion is required to make students participate in physical education classes but 8.33 % of them did not agree with the statement and 10% of them were undecided for their response.

TABLE 32
STATEMENT: THE SUCCESS OF PHYSICAL EDUCATION PROGRAMME
DEPENDS UPON THE ENCOURAGEMENT AND COOPERATION OF
THE HEAD OF THE INSTITUTION.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	50	83.33
2.	Responded in Negative	6	10
3.	Responded in undecided	4	6.67

Table 32 shows that 83.33% respondents were of the view that the success of physical education programme depends upon the encouragement and cooperation of the head of the institution, 10% of them disagree and 6.67% of them were undecided for their response.

TABLE 33
STATEMENT: PARENTS ARE GENERALLY INTERESTED IN THE ACADEMIC
CAREER OF THEIR CHILDREN BUT NOT IN HIGHER ACHIEVEMENT IN
PHYSICAL EDUCATION.

S.No.	Remarks	Frequency	Percentage
1	Responded in Affirmative	53	88.33
2.	Responded in Negative	7	11.67
3.	Responded in undecided	Nil	Nil

It evident from Table 33 indicates that 88.33% respondents were of the view that the success of physical education programme depends upon the encouragement and cooperation of the head of the institution, 11.67% of them disagree with the statement.

DISCUSSION

The findings of the study indicate that the attitude of the heads of institutions towards the physical education programme is very positive.

Majority of the principals accept that regular physical education activities are essential for physical growth and development mental alertness, emotional maturity, social and moral development. It also inculcates leadership, cooperation, competition, promotes better interpersonal relations and provides enjoyment as well as fulfillment, which ultimately contribute to the total education of the child.

The myth that inadequate programme of physical education is due to lack of interest on the part of principals is not poor programme of physical education may be due to lack of trained physical education teachers, facilities i.e. play ground equipment and lack of funds. Sometime sports funds are used for other purposes in the school.

It may be concluded that poorly organized physical education programme is not due to negative attitude of principals but for the reasons mentioned above.

It was hypothesized that most of the principals may not have a positive attitude toward physical education is rejected.

CONCLUSIONS

Within the limitations, of the study the following conclusions may be Drawn:

1. The study has indicated that a majority of the principals have a favourable opinion towards all the aspects of physical education.
2. They are of the opinion that the children who actively participate in physical education programme are obedient, disciplined and well behaved.
3. They have a highly favourable opinion towards physical education because it promotes physical health and fitness, mental maturity and alertness,

BIBLIOGRAPHY

Johnson, Barry L. & Nelson, Jack K. Practical Measurement for Evaluation in Physical Education. (New Delhi: Surjeet Publication, 1982) p. 397.

Majumdar, N.N. A History of Education in Ancient India (Calcutta: Macmillan and Co. Ltd., 1916) p. 3-4.

Rai, B.C. Theory of Education, (Lucknow: Pralashan Kendreas, 1979) p.3

Voltoner, Edward F., Esslinger, Arthour A., Mccue, Belly Foster., and Tillman, Kenneth G. The Organization and Administration of Physical Education. (Englewood Cliffs; N.J. Prentice Hall, 1979) p. 116.

A COMPARISON OF SPORTS AGGRESSION AMONG MALES OF SELECTED SPORTS

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ABSTRACT

The purpose of the study was to compare the sports aggression among males of selected sports i.e. Soccer, Volleyball, Wrestling and Handball . Sixty male players were selected as the subjects for the study. The subjects were participants of North-zone Inter- varsity Competition and All India Inter-varsity championships. All the subjects were the participants of Noida College of Physical Education, Noida (U.P.) The age ranged of the subjects was between 17-25 years. The sport aggression inventory (SAI) prepared and standardized by A. Kumar and P. S. Shukla was selected for this study. One way ANOVA was used for the computation of collected data. . The level of significance was set at .05. The results of the study revealed that the significant difference was found in the means of male player of different games in their sports aggression. Wrestlers were have greater amount of aggressiveness followed by Soccer, Handball and Volleyball players. Paired mean difference between wrestling - handball followed by volleyball male players was found to be significant in their sport aggression..

Key Words: Sport, Aggression, Male player.

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INTRODUCTION

Modern competitive sports of today demands more emphasis on the training of psychological aspects of sports. The high level performance seen in competitive sports is nothing but a perfect optimum harmonious relationship between one's psychological preparedness and technical preparation.

Aggression has long been a part of the sports domain. Outside of wartime, sport is perhaps the only setting in which acts of interpersonal aggression are not only tolerated but enthusiastically applauded by large segment of society. Sports would serve as a suitable vehicle for example, whereas war would not.

Aggression is not an attitude but behavior and most critically it is reflected in the acts committed with the intention to injure. The term Aggression includes such wide range of acts engaged in by athletes, coaches and spectators as physically hitting, another individual and verbal abuse. The psychological characteristic as sports aggression was relevant and contributing factor for performance efficiency of athletes. Hence this variable was selected for the purpose of present study.

METHODOLOGY

Selection of Subjects:

Sixty Sportsmen (Wrestling=18, Soccer=18, Volleyball=12 and Handball=12) were selected as the subjects for this study. The subjects were participants of North-zone Inter-varsity competition and All India inter-varsity championships . All the subjects were participants belong to Noida College of Physical Education, Noida (U.P.) and their age ranged was between 17-25 years.

Description of Questionnaire:

Considering all this facts, the sport aggression inventory (SAI) standardized by Anand Kumar and Prem Shankar Shukla was selected for this study. The sports aggression inventory was consisted of 25 items in which 13 items were keyed 'Yes' and rest of 12 items were keyed 'No'..

RESULTS AND DISCUSSION

To compare the level of aggression among males of selected sports i.e. Soccer, Volleyball, Wrestling and Handball, Means, standarad deviations, ANOVA were used for the purpose of data analysis and data pertaining to this have been presented in Table 1 & 2.

TABLE 1

ANALYSIS OF VARIANCE OF AGGRESSION FOR MALE PLAYERS OF SELECTED SPORTS

Source of Variance	Df	SS	MSS	F. Value
Treatment	3	62.64	20.886	5.042*
Error	56	231.95	4.141	

* Significant at .05 level, Tabulated $F_{.05(3,56)} = 2.78$

Table – 1 revealed that there was significant difference in the means of male player of different games i.e. Wrestling, Soccer, Volleyball and Handball in relation to sports

aggression as obtained F-ratio was 5.042 which was higher value than the 2.78 required for F-ratio to be significant at .05 level with (3, 56) degree of freedom.

TABLE 2
POST-HOC TEST FOR LEAST SIGNIFICANT DIFFERENCE AMONG MALE IN
RELATION TO AGGRESSION

Means of Selected Sports					
Wrestling	Soccer	Handball	Volleyball	M.D.	C.D.
13.22	12.55			0.67	1.95
13.22		11.00		2.22*	2.18
13.22			10.75	2.47*	2.18
	12.55	11.00		1.55	2.18
	12.55		10.75	1.8	2.18
		11.00	10.75	.25	2.39

*Significant at .05 level, C.D. =Critical Difference, M.D.=Mean Difference

It is evident from table – 2 that mean difference of male players of selected sports in relation to sports aggression was found to be significant between Wrestling and Handball, wrestling and Volleyball as the mean differences were greater than the critical difference.

Mean difference between Wrestling and Soccer, Soccer and Handball, Soccer and Volleyball, Handball and Volleyball did not prove to be significant at .05 level of confidence as the mean differences were lower than the critical difference.

DISCUSSION

The findings of study showed that among four groups of sports i.e. namely Wrestling, Soccer, Handball and Volleyball male Wrestlers were found with highest level of aggression at the same time volleyballers were found to be of lowest in aggression. Further the players of selected three games Soccer, Handball and Volleyball didn't differ significantly on aggression. It was also evident from the findings that aggression of male Wrestlers was significantly higher than Handball and Volleyball players.

The finding that male Wrestlers were highest on aggression than the other selected team games can be attributed than the other selected team games can be attributed to the very fact that Wrestling is a combative sports and some form of aggression oriented actions are permissible within the limits of rules and regulations some specific techniques like throwing, Arm locks etc. are injury prone and by nature aggression oriented.

Footballers, Handballers and Volleyballers were lower than Wrestlers and they didn't differ significantly among them on aggression. This finding may be attributed to the reason that these three games are basically team game and play systems are based on scoring of goals, basket or points. The sequence of performance among male players of selected sports was Wrestling>Soccer>Handball > Volleyball.

It was also hypothesized that the Handball, Volleyball, Soccer, and Wrestling Players will be significantly different in level of aggression was rejected. The significant difference was not observed between the groups of Volleyball, Handball and Soccer games male players.

CONCLUSIONS

1. Significant difference was not found among male player of different games i.e. wrestling, Soccer, Volleyball and Handball on sports aggression.
2. Significant difference was found between Wrestling and Handball followed by Volleyball male players on sports aggression.
3. Wrestlers were found most aggressive, whereas Volleyball players were found to be least aggressive in nature.
4. Male players of selected three games i.e. Soccer, Handball and Volleyball did not differ significantly on aggression.
5. Aggression among male Wrestlers were higher than Handball & Volleyball players.

REFERENCES

- Crafty Bryant J.** Psychology and Physical Activity . Englewood Cliffs, N.J : Prentice Hall Inc; 1968.
- Cratty Bryant J.** Psychology and the Superior Athlete . London: Mac Millan Company Ltd., 1983.
- Silva, John M.** Psychology Foundations of Sport . U.S.A.: Human Kinematics Publishers, 1984.
- Bredemeir Brinda Jo and Shields David L.** “ Relationship of Sport involvement with Children Moral Reasoning and Aggression Tendencies”, Journal of Sport Psychology 8:4 (1986) : 304.
- Burris F.H.** “Aggression in Boxers and Wrestlers as Measured by Projective Technique”, Research Quarterly 26:4 (1955): 421.
- Buss Arnold H.** “Physical Aggression in Relation to Different Frustration Research Quarterly 34:4 (December 1963) : 530.
- Charles W.M.** “The Effect of Isotonic Resistance Exercise on Aggression Variables in Adult Male Inmates in the Texas Department of Criminal Justice”, Texas APM University, Dissertation Abstracts International 57: 8 Feb., 1997, PP. 138.
- Geire E.J. Mcet.** “Aggression as a Potential Mediator of the Home Advantage in Professional Ice Hockey,” Journal of Sports and Exercise Psychology 14: 2 (1992): 148.

ROLE OF SPORTS IN SOCIETY

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ABSTRACT

Sport forms part of human and social development; it can contribute to social cohesion, tolerance and integration and is an effective channel for physical and socio-economic development. Sport can be a powerful agent for change that should be leveraged by individuals, businesses, governments and elite athletes to drive significant positive development and progress in a social, economic and political context. Through sport, people identify new role models in society. Sport provides not only health benefits for young participants but also instils qualities such as team work, discipline and a competitive spirit that prove valuable in adulthood. Sport can contribute to economic development by creating additional sources of income including the manufacture of sporting goods, the development of sport related services and infrastructure or the hosting of sports events. Sport is a part of society as both an educational fixture and an entertainment enterprise. Sport is a means of exchange and understanding among people of various backgrounds, nationalities and beliefs and promotes expression beyond traditional barriers. It also offers a cost-effective tool to meet many development and peace challenges.

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INTRDUCTION

The role of sport in society has been debated for many decades. Sport is a part of society as both an educational fixture and an entertainment enterprise. Sport forms part of human and social development; it can contribute to social cohesion, tolerance and integration and is an effective channel for physical and socio-economic development. As a universal language, sport can be a powerful medium for social and economic change: it can be utilized to bridge cultural gaps, resolve conflict and educate people in ways that very few activities can. The goal of the Sports Council is to examine the proposition that sport can be a powerful agent for change that should be leveraged by individuals, businesses, governments and elite athletes to drive significant positive development and progress in a social, economic and political context.

DIMENSIONS

1. **Value of sport:** Sport is a means of exchange and understanding among people of various backgrounds, nationalities or beliefs, and promotes expression beyond traditional barriers. The rules of the game transcend differences and inequality and help redefine success and performance. Through sport, people identify new role models in society.
2. **Sport demographics and health:** Physical activity has a crucial social impact on society's health and well-being as well as healthcare costs. A connection also exists between being physically active and living a healthy lifestyle. But as the Western world grows older, sport must reinvent itself to deal with this demographic shift.
3. **Sport and education:** Sport provides not only health benefits for young participants but also instils qualities such as team work, discipline and a competitive spirit that prove valuable in adulthood. It therefore warrants a prominent place in the educational system.
4. **Sport and politics:** Sport and politics often go hand-in-hand. Events such as football matches and the Olympic Games can be vehicles for improving understanding between countries.
5. **Sport and economic development:** Sport can contribute to economic development by creating additional sources of income including the manufacture of sporting goods, the development of sportrelated services and infrastructure or the hosting of sports events. Is government policy needed to elevate the importance of sport? How much investment can developing countries justify to promote sport, compared to other urgent social programmes?
6. **International trade in sporting goods:** Of concern in the past decade have been the relocation of production in developing countries, their specialization in the production of low cost sporting products or poor working conditions in the sporting goods industry – particularly the issue of child labour.
7. **Sport and social entrepreneurship:** An opportunity to build sport social entrepreneurship that fuels both social change and job creation exists. This can be driven primarily through the emerging hybrid of entrepreneurship and the NGO movement.

- 8. Dark side of sport:** The increasing monetary and partisan nature of sport means that it can potentially give rise to violent and illegal activity or transactions that may not be in a community's interest. Examples include violence between athletes or spectators, the use of performance enhancing drugs, or the bribery and ownership of clubs by individuals who are motivated by non-sporting factors.

Sport is a part of society as both an educational fixture and an entertainment enterprise. Sport forms part of human and social development it can contribute to social cohesion, tolerance and integration and is an effective channel for physical and socio-economic development. As a universal language, sport can be a powerful medium for social and economic change: it can be utilized to bridge cultural gaps, resolve conflict and educate people in ways that very few activities can.

Sport is a means of exchange and understanding among people of various backgrounds, nationalities and beliefs and promotes expression beyond traditional barriers. The rules of the game transcend differences and inequality and help redefine success and performance. Through sport people identify new role models in society. Sport provides not only health benefits for young participants, but also instills qualities such as teamwork, discipline, and a competitive spirit that proves valuable in adulthood.

The increasing monetary and partisan nature of sports means that it can potentially give rise to violent and illegal activity. The increasing violence in Hockey, Boxing, Mixed Martial Arts etc. that turned real ugly real fast. Some have even debated that the public should be concerned, but not surprised, by the violence in sports today because those involved are mirroring the actions of our society. So, sports play a vital role in society both positively and negatively.

SPORT AS A VEHICLE FOR DEVELOPMENT AND PEACE

The use of sport to promote peace and development is not entirely new; the Olympics are a historic example of sport used for a higher purpose. However, until recently, sport has remained on the sidelines of mainstream humanitarian and development programming, considered a luxury in the context of other development objectives. Now, though, there is a growing understanding that sport does not have to compete with other priorities but can actually be a means for addressing them. The United Nations Task Force on Sport for Development and Peace affirmed this notion, concluding in its 2003 report that "sport offers a cost-effective tool to meet many development and peace challenges, and help achieve the United Nations Millennium Development Goals.

A recent international movement is growing around the use of sport for development and peace, as evidenced by some of the following key events:

1. In 2001, the Inter-American Development Bank announced it would use sport to promote economic and social development.
2. Also in 2001, created a new position, Special Adviser to the Secretary General on Sport for Development and Peace, and tapped former Swiss president, Adolf Ogi, to fill the post. Ogi is charged with identifying opportunities to use sport within UN programs and to build partnerships between the UN and sports institutions.
3. In 2002, Mr. Ogi and Ms. Carol Bellamy, Executive Director of UNICEF, convened the United Nations Inter-Agency Task Force on Sport for Development and Peace to

discuss experiences and lessons learned and make recommendations regarding the use of sport by UN programs.

4. In February 2003, the first International Conference on Sport and Development passed the “Maggingen Declaration,” affirming delegates’ commitment to sport for development and peace and calling on others to support the movement. Numerous other international conferences have moved the discussion forward. An International Working Group will spend the next four years identifying best practices and guidelines for sport for development and peace.
5. On November 3, 2003, the UN General Assembly passed resolution 58/5 encouraging governments to use sport to advance their development and peace and declaring 2005 the “International Year of Sport and Physical Education.”
6. The International Olympic and Paralympics Committees have both made commitments to support the use of sport for development and to improve the lives of people living in the most disadvantaged regions of the world.

At the field level, donor agencies, international and indigenous humanitarian and development organizations, national and local governments, sports ministries and federations, Olympic and Paralympic Committees, leagues and clubs, schools, and individuals have generated a host of creative and effective ways to leverage the power of sport.

BIBLIOGRAPHY

Kenneth McMichel (2012) “The Role of Sports in Society: My Perspective”

http://icindymag.com/index.php?option=com_content&view=article&id=365:

Pierre Lanfranchi, Professor, De Montfort University, United Kingdom World Economic

Forum, “Role of sports in Society” Global Agenda Council on the Role of Sports in Society , 2010. <http://assets.sportanddev.org/downloads/200901>.

United Nation agency International Development “ The role of sports as a developmental Tool” pp..4-5 Available at www.usaid.gov. & Available at www.dec.org/2011

OVER TRAINING IN SPORTS: TREATMENT AND PREVENTION

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ABSTRACT

An athlete not only to tackle the specific demands of training and competitions of his/her respective sports/games, but he/her has to take many other responsibilities like professional, social & family responsibility. In other words an athlete during his entire professional career has to bear the training and competition load with various responsibilities. Therefore before start the real training program, the coach, trainer and other's should assess the need and goals of an athlete and evaluate the current level of performance then prepare the individual complete training schedule specifically. During the training it is very important that the athlete, coach, trainer and others must work as a team with accepted standard of care because this standard of care will determine the future performance of an athlete.

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INTRODUCTION

Training principles are incorporated in to athletic training programs to maximize physical performance. Both endurance and strength training are incremental increase in training s to stimulate physiologic stress and subsequent adaptation. A well designed training program includes overtraining within^ exercise tolerance level a long with adequate recovery periods that optimize training improvement. This particular approach called privatization of training aids in the timing of an athlete's peat performance. Over occurs when excessive exercise stress transcends the body's ability to adopt and leads to reductions in athletic performance. Homeostasis is not restored, and thus biochemical, physiologic and immunological systems become altered.

WHAT IS OVER-TRAINING

Training beyond the physiological and psychological capacities of the body to recover during the rest periods. Over-training is associated with rundown and burn-out, and commonly causes physical and Mental Fatigue resulting a decrease in the quality of performance. The athlete typically complains of feeling tired and having sleeping.

THE OVER-TRAINING SYNDROMES

The over-training syndrome consists of various symptoms in an athlete who has engaged in training program that has exceeded the body's physiologic and Psychological limitations. A combination of sign and symptoms of over-training which typically causes the sufferer to feel mentally fatigued without being physically fatigued and causes performance to deteriorate. The suffers basal metabolic rate is elevated, there is usually a loss of body weight associated with a negative nitrogen balance, and the rate of return exercise pulse-rate to resting pulse-rate is delayed. The overtraining syndrome is through to involve changes in both the neuron and endocrine systems, particularly the hypothalamus. The common symptoms associated with over-training are increasing resting heart rate, weight loss, poor healing, insomnia, loss of appetite, frequents upper respiratory infection, sore throat, heavy feeling in legs, decreased performance, irritability, restlessness, reduced concentration, depression, emotional liability increased evening fluid intake, excessive sweating, poor sleep, decreased libido decreased competitive drive etc.

DIFFERENCE BETWEEN OVER-TRAINING AND FATIGUE

Fatigue is the anticipated response to an over-training stimulus. The functional capacity of the athlete is- only temporarily impaired, and the recovery process ensures the renewal of energy sources and may even super compensate to above baseline levels. As opposed to exercise related fatigue. Which may last from several days up to two weeks and carries a favorable prognosis, over-training may take several weeks to month for complete recovery. Further impairment of physical performance and alterations of mood state characterize the over-training syndrome.

PSYCHOLOGICAL COMPONENTS

Disturbance, doubt, criticism, depression, lack of motivation, lack of confidence are key Psychological component of over-training syndromes, and may be associated with increases in training volume and /or intensity. Symptoms released to decreased performance include Fatigue, difficulty in concentrating, depression and irritability. An athlete's railing of perceived exertion is increased at given workload. The profile of mood states is frequently used

to measure alterations in psycho-pathological parameters. This scale can be used to monitor an athlete's mood during the training.

HOW DOES OVER-TRAINING SYNDROME OCCUR

Over-training syndrome results from an imbalance between training and recovery. Limited rest and training beyond an athlete's ability to recover and adapt lead to an over-trained state. A combination of endogenous and exogenous factors induce over training. Each athlete has an individual and available recovery potential and exercise capacity, as well as a multitude of non training stress factors. In addition, any incidents of over-training are secondary to training errors and / or rapid increases in training intensity.

WHICH ATHLETES AT GREATEST RISK OF OVER-TRAINING

Endurance athletics are at higher risk of over-training because of their prolonged period of exercise training. Young athletes are also at risk, because often they are pushed too hard or too fast by overzealous coaches and parents. Adult runner often competes in too many road races per season and do not allow enough rest between competitions. Competitive swimmers also have high training volumes and commonly train several times per day. Multi sports athletes (e.g. tri athletes, pentathletes, decathletes) frequently struggle to balance appropriate rest achieved simultaneously training for multiple sports. Female athlete, particularly those in sports with extra emphasis placed on performance and physical appearance may over train in pursuit of thinness.

MEANS THAT HELP TO DETECTION OF OVER-TRAINING

Decreased performance is often the first sign of an over trained athlete. Although there are no widely accepted diagnostic criteria for the over-training syndrome, performance decrements associated with other recognized indicators of over-training may be sufficient to make the diagnosis. Additional markers for over-training include an increased resting heart rate, weight loss. Frequent illness, Sleep disturbance and increased thirst and evening fluid intake.

HOW CAN OVER-TRAINING BE PREVENTED

Prevention is paramount because of the risk of injury, illness, premature retirement and sustained decrements in performance. Unfortunately, no universally accepted laboratory test can be used to monitor over training. Periodization of training separates the various phases of training such as endurance work, speed work, skill training and tapering into limited periods for maximal performance. The principle of periodization allows athletes adequate rest between training sessions and can prevent breakdown during periods of hard training. Coaches and trainers need to be aware of the unique differences in each athlete's tolerance to stress and appropriately balance and individualize training sessions. Proper attention to specific training, practice can prevent training errors, which are the most common cause of running injuries. High intensity training without rest and sudden increases in intensity must be avoided. Daily mood monitoring reduces over training. Training should be appropriately decreased when deteriorating moods are detected and increased when moods improve.

TREATMENT FOR OVER-TRAINING ATHLETE

There is no specific treatment for over-training syndrome. Thus, the focus must be on early recognition and appropriate prevention. A reduction in training volume and for intensity may be adequate for recovery. Athletes need reassurance and proper counseling

about the importance of rest and relaxation techniques. Massage and hydrotherapy are often used as regeneration strategies. An open communication lie with coaching personal is crucial, and field test for physical conditioning help coaches to guide gradual increments in training. Attention to proper nutrition and fluid supplementation is useful. Cross training and reduction is a competition also aid in the recovery process.

CONCLUSION

An athlete not only to tackle the specific demands of training and competitions of his/her respective sports/games, but he/her has to take many other responsibilities like professional, social & family responsibility. In other words an athletic during his entire professional career has to bear the training and competition load with various responsibilities. Therefore before start the real training program, the coach, trainer and other's should assess the need and goals of an athlete and evaluate the current level of performance then prepare the individual complete training schedule specifically. During the training it is very important that the athlete, coach, trainer and others must work as a team with accepted standard of care because this standard of care will determine the future performance of an athlete.

BIBLIOGRAPHY

Uppal, A. K. Science of Sports Training , 2001.

Singh, Hardayal Principal of Sports Training New Delhi : D. V. S. Publication, 1991.

Kent, Michael The Oxford Dictionary of Sports Science and Medicine , 1994.

Mellion, Morris B. Sports Medicine Secretes, 1999.

Lawrence G. and Panda, M M. Modern Principles of Athletic training, 2002

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