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EDITORIAL

This year we have received International Standard Serial Number (ISSN), another mile stone of your journal. From this issue to achieve and maintain the international standard we would like to follow the 'India Journal of Medical Research', Indian Council of Medical Research guide lines. From the next issue we will follow the peer review system of a standard journal. For that we are searching motivated quality reviewers as honorary basis. You may send your bio-data with list of publications etc. to join in the elite reviewer's panel of Yogic Science, Exercise & Sport Science and Physical Education research. Looking forward for a brighter future of our profession.

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FACTORS INFLUENCING STRIDE LENGTH DURING SPRINTING SPEED

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ABSTRACT :

Background : From the viewpoint of mechanics sprinting speed is the function of two major variables – stride length and stride frequency. Both of the variables are influenced by hereditary factors. But it is agreed that scientifically designed training can help to realize the fullest potential of both these variables to maximize the sprinting speed of the individual. A number of studies have been attempted to analyze this situations.

Aim: Present study was planned to analyze the factors on which stride length depends.

Method: Eighty school boys of thirteen years of age were selected as subjects. Three groups of influencing factors were selected. First group of mechanical factors involved stride frequency; second group of anthropometric factors was consisted of height, weight, leg length, hip circumference, and shoulder width; and third group of motor fitness factors had leg explosive strength and hip flexibility were considered. All the parameters were measured by standard tests and tools.

Results: From the results it was observed that sprinting speed had negative correlation with stride length. Results also indicated that strid length was 1.13 times the body weight and 2.33 times the leg length. was also noted that height, leg length, body weight, hip circumferenc shoulder width had positive correlation with stride length. Leg explosiv strength and hip flexibility had positive correlation with stride length.

Conclusion: From the results of this study, following conclusions wer drawn: i) During sprinting speed, stride length varies inversely with strid frequency; ii) Height, leg length, body weight, hip circumference, an shoulder width bear positive correlation with stride length; and iii) Strid length depends upon leg explosive strength and hip flexibility.

Key words: Sprint, Stride length, Stride frequency, Motor fitness

INTRODUCTION:

Running with maximum speed is called sprinting. As an importan component of motor fitness, sprinting speed plays a decisive role in som sports and dominant in many others. Experts believe that the sprintin speed of an individual depends upon some hereditary factors such as natur of muscle fiber, mobility of nervous system, biomechanical mechanism etc. These hereditary factors can not be influenced by training. So individuals differ in sprinting speed and it is considered that sprinters ar born.

In spite of this, there are specific methods of training for sprinters According to mechanics, running speed depends upon two main factor viz. distance to be covered and time taken for covering the distance. Tim taken is again dependent upon stride length and stride frequency Theoretically, running speed is directly proportional to these mechanica factors. Among these two, stride frequency is thought to be hereditar whereas stride length depends upon factors all of which are not hereditar in nature. So, training for sprinters is mainly aimed at improving strid length with maximum possible stride frequency. This has been specificall

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mentioned by Schmolinsky et al (1983) by saying that purpose of sprint training should be to increase leg explosive strength to take longer strides in shorter time.

So, it is important to know the factors on which the stride length depends during sprinting speed. Among previous researchers, Rompetti (1957) and Hoffman (1967) analyzed the relation of stride length with body height and leg length and found statistically positive significant correlation. Gundlach (1963) made thorough investigation regarding stride length during 100m sprint and reported that top sprinters increased their stride length up to 45m whereas poorly trained athletes increased them up to 25m. Saito et al (1975) reported that the sprinters exhibited slight decrease in stride length at the extreme velocity. The aim of the present study was to analyze the factors on which stride length depends.

METHODOLOGY:

Eighty school boys of thirteen years of age were selected as subjects. Mean height and weight of the subjects were 156.35 cm. and 39.51 kg. respectively. The subjects did not have experience of organized training except their routine physical education class in school.

Three groups of influencing factors were selected. In the group of mechanical factors – the stride frequency; in the group of anthropometric factors – height, weight, leg length, hip circumference, and shoulder width; and in the group of motor fitness factors – the leg explosive strength and the hip flexibility were selected as parameters. Height, leg length and shoulder width were measured by anthropometer and the hip circumference by steel tape. Body weight was measured by weighing machine. Leg explosive strength was measured by vertical jump and flexibility of hip joint was measured by manual goneometer. For measuring speed, stride length and stride frequency, the subjects were instructed to run 50 m sprint. White powder was spreaded on the running surface from 15 m to 50 m of the course to record the foot prints. Considering the level of performance

of the subjects, the distance between 20 m to 40 m was taken as the top speed zone. Time keepers were posted at 15m, 20m, 25m, 30m, 35m, 40m, 45m and 50m. At first 5m zone of maximum speed was found out for each subjects. Then with the help of foot prints in that zone the stride length and stride frequency were calculated during maximum speed. For measuring time, manually operated electronic stop watches with 1/100 sec. calibration were used.

RESULTS AND DISCUSSION:

Mean values of maximum speed as dependent variable and selected mechanical, anthropometric and motor fitness parameters as independent variables have been presented in table 1.

TABLE – 1: MEAN AND SD OF DEPENDENT AND SELECTED INDEPENDENT VARIABLES

Stat.	Max. Speed m/sec.	Stride length in cm.	Stride Frequ-ency No/sec.	Height in cm.	Leg Length in cm.	Body weight in kg	Hip Circum. in cm.	Shoulder Width in cm.	Jumping Height in cm.	Hip Flexibility (Degree)	
										Straight Knee	Bent Knee
Mean	9.63	174.72	4.26	154.97	75.02	38.37	74.00	37.40	37.37	71.00	115.25
S.D.	± 1.59	±10.76	± 1.06	± 6.71	± 3.63	± 6.90	± 4.17	± 1.93	± 4.90	± 12.87	±11.49

From the table values it is seen that stride length was 1.13 times the body weight and 2.33 times the leg length. These values of top class sprinters as reported by Hoffman (1967) were 1.14 and 2.11 respectively. Stride frequency during maximum speed was 4.26 in the present case in compare to 4.85 for top class sprinters as reported by Hammel (1979).

To find out the relationship of stride length with different selected factors during maximum speed, co-efficients of correlation were computed by Product-Moment method. (Table 2)

TABLE – 2: CO-EFFICIENT OF CORRELATION BETWEEN STRIDE LENGTH AND SELECTED INDEPENDENT FACTORS DURING SPRINTING SPEED

Parameter		Value of 'r	Number of Subjects	df	Needed value of 'r' for being significant	Remark
Stride Frequency		- 0.34	80	78	At 0.05 level = 0.22 At 0.01 level = 0.29	Significant negative correlation at 0.01 level
Height		0.60	80	78	Do	Significant positive correlation at 0.01 level
Weight		0.48	80	78	Do	Do
Leg Length		0.58	80	78	Do	Do
Hip Circumference		0.52	80	78	Do	Do
Shoulder Width		0.43	80	78	Do	Do
Leg Explosive Strength		0.44	80	78	Do	Do
Hip flexibility	Straight knee	0.23	80	78	Do	Significant positive correlation at 0.05 level
	Bent knee	0.08	80	78	Do	Not Significant at 0.05 level

It was observed from the table-2 that the stride length at maximum locomotor's speed is negatively correlated with stride frequency at significant level. So, increase of stride frequency might reduce the stride length and vice versa during maximum speed. This result explains the findings of Saito et al (1975) who noticed small decrease in stride length at maximum speed both in surface running and treadmill running. This decrease might be due to increase of stride frequency at the maximum possible level during top speed. Positive significant correlations with height and leg length are supported by the results obtained by Rampotti (1957) and Hoffman (1967). But, positive correlation with body weight differs from that of Rampotti (1957). This may be due to the fact that the subjects

in the present case were adolescent boys. Positive significant correlation with hip circumference and shoulder width signifies the common build-up of top class sprinters. Positive significant correlation with leg explosive strength had been supported by Schmolinsky et al. (1983) who opined that training for sprinting required to give more emphasize on the development of leg explosive strength. Positive significant correlation with hip flexibility had been supported by Tipton (1969) who emphasized on the need of flexibility for sprinters and accordingly had proposed variety of exercises for the improvement of flexibility.

CONCLUSSION:

From the results of this study, following conclusions may be drawn: i) During sprinting speed, stride length varies inversely with stride frequency; ii) Height, leg length, weight, hip circumference, and shoulder width influence stride leg directly during sprinting speed; iii) Stride length depends directly upon leg explosive strength and hip flexibility.

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EFFECTS OF TWO DIFFERENT INTENSITIES OF BENCH STEP TRAINING ON URINE CREATINE OF COLLEGE MEN ATHLETES

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ABSTRACT: Purpose of the study was to investigate the effects of two different intensities of Bench Step Training on Urine Creatine of college men athletes. Forty-five college men athletes were selected at random and divided in to three equal groups. Pre-test was conducted for all three groups on selected variables. The Experimental Groups participated in their respective bench step training for a period of eight weeks on alternate days. Post-test was conducted on the above mentioned dependent variables after training. The following results were drawn from the study, 1. The two types of intensities of Bench Step training adopted in this study, on the whole, brought significantly positive changes in the Experimental groups. 2. The results were observed and there were significant improvement in both variables under this study namely Urine Creatine. The following conclusions were drawn: 1. Urine Creatine were improved due to the influence of two different Intensities of Bench Step Training of college men athletes (30 Cadence per minute of Bench Step training and 23 Cadence per minute of Bench Step training). 2.Thirty cadences per minute showed significantly greater improvement on Urine Creatine than that of 23 Cadence per minute of Bench step training.

INTRODUCTION

Bench stepping is simply stepping up and down on a bench. Step training is a great exercise to burn fat and improves the condition of the heart and lungs. Once your body gets creatine from meat or other sources it converts it into phosphocreatine. Phosphocreatine is important because it is used to store energy in your muscle. The benefits of creatine include: promote muscle gain, increase the size of muscle fibers, increase muscle mass, increase muscle strength and power, increase physical fitness

and sports performance.

The purpose of the study was to investigate the effects of two different intensities such as 30 Cadence per minute and 23 Cadence per minute of bench step training on urine creatine of college men athletes.

Methodology

Subjects

To execute this investigation, the investigator randomly selected forty-five athletes from A. M. S. College of Engineering, belonging to the age group of 20-24 years. They were divided in to three equal groups of fifteen subjects each and assigned as 30 Cadence per minute, 23 Cadence per minute and Control Group.

Variables

Keeping in mind the roles of various Physiological and Biochemical variables, their importance and availability aspects, the following variables were selected for this study: Urine creatine

Experimental Design

The study was formulated as a true random group design consisting of a Pre test and post test. For this purpose, forty-five college men athletes were selected at random and assigned to three equal groups. The groups were assigned as 30 Cadence per minute, 23 Cadence per minute and Control Group. Pre test were conducted for all three groups on selected Physiological and Biochemical variables. The Cadence per minute participated in their respective bench step training for a period of eight weeks on alternate days. Post tests were conducted on the above mentioned dependent variables after eight weeks of the training period.

BENCH STEP TRAINING WORKOUT PROGRAMME

30 Cadence per minute Workout

The bench step training for this Group consists of 30 Cadence per minute, during the evening hours between 4:30 to 5:30 p.m for three days per week. The training bench height is 40 cm. The duration for the training will be raised by about 15 seconds every week.

23 Cadence per minute Workout

The bench step training for this Group consists of 23 Cadence per minute, during the evening hours between 4:30 to 5:30 p.m for three days per week. The training bench height is 40 cm .The duration for the training will be raised by about 15 seconds every week.

Control Group: No training was given to this group during the training period.

Data collection

Urine creatine -Jaffe (1886) described a method for the determination of creatine involving a protein free filtrate and a reaction with picric acid in alkaline solution. Although several methods have been described since then, the classic jaffe reaction is still the most widely used, the jaffe reaction is subject to interference by a number of substances, including protein and glucose, modification of the procedure have been developed to combat the drawbacks. The kinetic procedures have become popular because they are fast, simple and avoid interference. The present method is based on a modification of the above procedure, incorporating a surfactant and other ingredients to minimize protein and carbohydrate interference.

Expected Value: 0.40 –1.40 mg/dl, It is highly recommended that each laboratory establish as its own reference range.

Results and discussion

Computation of analysis of covariance of urine creatine

The following tables illustrate the statistical results of the Effects of Two Different Intensities of Bench Step Training on Urine Creatine of College Men Athletes and ordered adjusted means and the difference between the means of the groups under study.

TABLE – I -COMPUTATION OF ANALYSIS OF COVARIANCE OF URINE CREATINE (SCORES IN MG /DL)

Means	Control Group	30 Cadence / minute	23 Cadence / minute	S.V	S.S	D.F	M.S	O. F
Pre test	170.46	170.60	168.28	B	57.83	2	25.740	0.003
				W	345605.28	42	8429.39	
Post test	177.46	100.19	131.86	B	51565.72	2	25782.86	6.17*
				W	171259.46	42	4177.06	
Adj Post	177.07	99.77	132.7	B	51.48	2	25691.32	17.70*
				W	345605.28	41	1451.26	
Mean Gain	7	70.41	36.42	* significance				

TABLE –I (A) - COMPUTATION OF SCHEFFE'S POST HOC TEST ORDERED ADJUSTED FINAL MEAN DIFFERENCE OF URINE CREATINE (SCORES IN MG /DL)

Control Group	23 Cadence / minute	30 Cadence / minute	M.D	O.F	T.F
177.07	132.7	-	44.37	10.06	3.23
177.07	-	99.77	77.3	29.08	3.23
-	132.7	99.77	32.9	34.93	3.23

Results of urine creatine

Table I Shows the analyzed data on Urine Creatine, the Pre test means of Urine Creatine were 170.60 for 30 Cadence per minute, 168.28 for 23 Cadence per minute and 170.46 for Control Group. The obtained 'F' ratio 0.003 was lesser than the table 'F' ratio 3.23. Hence, the Pre test was not significant at 0.05 level of confidence for the degrees of freedom 2 and 42.

The post test means were 100.19 for 30 Cadence per minute, 131.86 for 23 Cadence per minute and 177.46 for Control Group. The obtained 'F' ratio 6.17 was higher than the table 'F' ratio 3.23. Hence, the post test was significant at 0.05 level of confidence for the degrees of freedom 2 and 42.

The adjusted post test means were 99.77 for 30 Cadence per minute, 132.7 for 23 Cadence per minute and 177.07 for Control Group. The obtained 'F' ratio

17.70 was higher than the table 'F' ratio 3.23. Hence, the post test was significant at 0.05 level of confidence for the degrees of freedom 2 and 42.

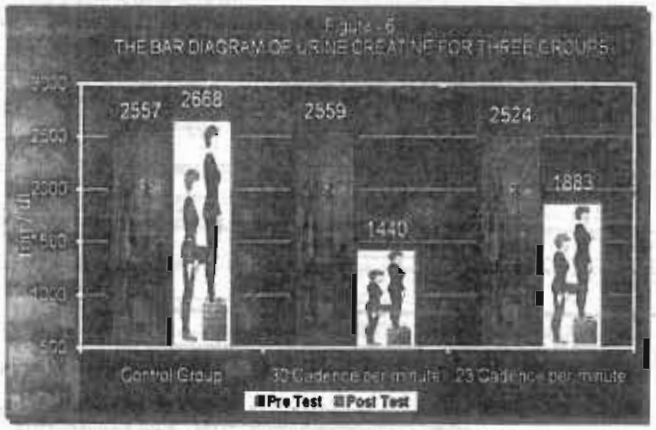
The means gain of 30 Cadence per minute, 23 Cadence per minute and Control Group were 70.41, 36.42 and 7 respectively.

Table I (a) shows the Scheffe's post hoc test of ordered adjusted final mean difference of Urine Creatine of different groups. The difference between 30 Cadence per minute and 23 Cadence per minute was 32.93, 30 Cadence per minute and Control Group was 77.34, and 23 Cadence per minute and Control Group was 44.37.

The obtained 'F' ratios of the above comparison were 4.93, 29.08 and 10.06 respectively. The table 'F' ratio was 3.23 at 0.05 levels. Hence, all three comparisons were significant.

Discussion on findings of urine creatine

The analysis of covariance of Urine Creatine with the inclusion of bench step training was undertaken on the 30 Cadence per minute and 23 Cadence per minute and from the results, it is found that the expulsion of unutilized creatine through urine will be reduced to a greater extent by the training.



It is also shown that the 30 Cadence per minute had more effect on the improvement of Urine Creatine than the 23 Cadence per minute.

This is evidenced by the work done by Thomas Remer et.al (2002) who found that the measurement of urinary creatinine excretion serves as a simple Biochemical tool for evaluating total-body skeletal muscle mass or body composition. Earlier, Jesus Rico-Sanz (2000) proved through the results obtained by him that the elevating muscle Cr enhances oxidative phosphorylation during mild isometric exercise, where it is expected that oxygen delivery matches demands and predominantly slow-twitch motor

units are recruited. Creatine reduces human muscle PCr and pH decrements and P_i accumulation during low-intensity exercise.

Hence, it is concluded that the expulsion of unutilized creatine through urine will be reduced to a greater extent by the bench step training where the Urine Creatine will be converted into useful performance. This clearly shows that the bench step training will enhance the overall performance of an athlete.

Conclusions

Within the limitations of the study, the following conclusions were drawn:

1. Urine creatine were improved due to the influence of two different Intensities of Bench Step Training of college men athletes (30 Cadence per minute of Bench Step training and 23 Cadence per minute of Bench Step training).
2. Thirty cadences per minute showed significantly greater improvement on Urine Creatine than that of 23 Cadence per minute of Bench step training.

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COMPARISON OF STRENGTH ENDURANCE EXPLOSIVE POWER AND FLEXIBILITY BETWEEN ACADEMY AND NON ACADEMY SOCCER PLAYERS

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ABSTRACT

The purpose of the study was to compare the strength endurance, explosive power and flexibility between academy and non academy soccer players. To achieve this purpose, thirty male soccer players were selected as subjects among them fifteen academy soccer players and fifteen non-academy soccer players, their age ranged between 18 and 21 years. The selected variables were such as strength endurance, explosive power and flexibility and they were tested by using bent knee sit-ups, vertical jump and sit and reach test. The collected data were subjected to t ratio to find out the significant difference if any between the groups. The results of the study showed that there was a significant difference on strength endurance and explosive power and no significant difference was found in flexibility between academy and non academy soccer players.

Key Words: Soccer, Flexibility, Strength endurance, Explosive power.

INTRODUCTION

Soccer is a sport requiring high levels of physical fitness. It is one of those rare games which demands not only speed but agility, strength, power and endurance. Players at top levels can run over 14 km in a game whilst not forgetting the frequent accelerations, decelerations, changes of direction and jumps they must undertake. Fitness is important at all levels

of the game, whilst being essential for top level players; it is beneficial for beginners who will improve both their effectiveness and enjoyment through good standards of fitness. The aim of fitness training in football is to enable a player to cope with the physical demands of the game as well as allowing the efficient use of his various technical and tactical competencies throughout the match.

Different sports require different fitness components. Football players must be able to perform prolonged intermittent exercise (endurance), exercise at high-intensity, sprint, and develop high levels of power (force) when kicking and tackling. Good levels of agility and coordination are also necessary and distinguish between elite and average players. During a game the exercise intensity varies continually thus fitness training should be as realistic as possible. Training should also involve regular use of the ball as this will not only help develop the specific muscles involved in match play, but improve technical and tactical skills and help keep players interested.

The purpose of this study was to compare the strength endurance, explosive power and flexibility between academy and non-academy soccer players.

METHODOLOGY

Thirty male soccer players who participated in intercollegiate tournaments were selected as subjects, among them fifteen academy soccer players and fifteen non-academy soccer players. The selected academy soccer players were studying in Sri Venkateswara Junior College, Tirupati and non-academy soccer player were studying in Seecom Junior College, and Emerald junior college, Tirupati, Andhra Pradesh, and their age ranged between 18 and 21 years.

The selected variables were assessed by using standard tests and procedures, such as strength endurance, explosive power, and flexibility by using sit-ups, vertical jump. and sit and reach test respectively.

The collected data from the two groups was statistically examined by using t-ratio to find out the significant difference between the academy and non-academy soccer players.

RESULTS:

Table –I shows that significant difference was found in strength endurance between academy and non academy soccer players ($t = 2.82$, $P < .05$), which means academy soccer players were having more strength endurance when compared with non academy soccer players.

Table – I

Mean, standard deviations and t-ratio of strength endurance of academy and non academy soccer players

Group	Mean	SD	't' - ratio
Academy	49.6	5.93	2.82*
Non Academy	35.4	6.34	

*Significant at 0.05level

Table –II shows that significant difference was found in explosive power between academy and non academy soccer players($t = 6.67$, $P < .05$),which means academy soccer players are having more explosive power when compared with non academy soccer players.

Table – II

Mean, standard deviations and t-ratio of explosive power of academy and non academy soccer players

Group	Mean	SD	't' - ratio
Academy	2.28	0.81	6.67*
Non Academy	2.26	0.10	

*Significant at 0.05level

Table –III shows that there was no significant difference in flexibility between academy and non academy soccer players ($t = 1.12$, $P > .05$).

Table – III

Mean, standard deviations and t-ratio of flexibility of academy and non academy soccer players

Group	Mean	SD	't' - ratio
Academy	35.13	1.15	1.12
Non Academy	34.67	1.07	

RESULTS AND DISCUSSION

Based on the results of the study it indicates that there was a significant difference between academy soccer players and non-academy soccer players on strength endurance and explosive power, where as there was no significant differences was found in flexibility. It may be due to performing regular stretching exercises at the time of warming up and cooling down by academy and non academy soccer players. Since the academy soccer players got special attention with experienced coaches and trainer with improved facilities and good nutritious diet and financial helps, including fitness-oriented facilities, metropolitan location, and discretionary expenditures per student, that may significantly differ than non academy soccer players which reflected strength endurance and explosive strength parameters.

CONCLUSION

Based on the results of the present study, it was concluded that there was a significant differences on strength endurance & explosive power and no significant differences found in flexibility between the academy and non academy soccer players. The academy soccer players were having better general fitness than the non academy soccer players.

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SOCIO-PSYCHOLOGICAL CORRELATES WITH WILL TO WIN OF SPORTSPERSON

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ABSTRACT

The paper is an empirical attempt to explore the socio-psychological correlates with the will to win of the sportsperson. A sample of 400 sportsperson in the age group of 19 to 25 years studied by using semi-structured interview schedule. It is explored that the socio-economic status of the sports person have something to do with the self esteem and will to win of sportsperson.

INTRODUCTION

Since the competitive sport is characterized by a spirit of dedication, sacrifice and intensity for maximum performance aiming for victory, it ought to be complemented by the will to win. Will to win can be described in sport as a force or an instinct to excel. In sport, such a feeling of will power should be based on factors like pursuance of objectives, imposing upon one clear-cult objectives and deeds for being energetic. It must be supplemented with self-sufficiency to have creativity in the direction of set objectives. Timely decisions are needed to have the solution of problems to carry out with determination a long-term struggle for achieving the objectives. Maintaining self-command over feelings and activities under irritation, severe strain, fatigue or failures are the key factors for acquiring appropriate will to win is required in sport.

Will to win is defined as the extent to which a person desires to reach some standard of excellence or to defeat an opponent. Individual high in will to win should be very competitive and should feel that winning is the major reason for competing. Winning or loosing should affect their sense of self-esteems, there is some similarity between the will to win concept and need achievement (Atkinson, 1961) and to lesser extent internal locus of control (Rotter, 1966). Will to win is also related to competence (White, 1959) and some aspect of aggression. People with high will to win feel that winning is extremely important and that it is the main reason for competing. The athlete high in will to win competes compete mainly to be first and may have something of a "win at all costs" attitude, low will to win indicates that the competitor cares less about winning per se or competes for other reasons. Further, the outcome of the contest seen is less consequential to self-esteem or personal identity. In view of above, the paper makes an empirical attempt to understand the socio-psychological correlates with the will to win of the sportsmen.

METHODOLOGY

A sample of 400 sports person in the range of 19 to 25 years having equal representation of male (200) and female (200) from high socio-economic background and low socio economic background are studied. A semi-structured interview schedule is being administered to attain objectives of the study.

RESULTS AND DISCUSSION

Mean, SD and 't' values of will to win of high and low socio economic status (SES) Sportsmen

Variables	Mean	SD	t-value
High SES	8.85	2.35	2.64*
Low SES	7.94	2.44	

*Significant at 0.05 level.

On the dimension of will to win, the high and low SES sportsmen mean scores is 8.85 and 7.94 respectively. The obtained't' value is 2.64 which is significant at 0.05 level. The higher mean score of high SES sportsmen clearly indicate that they are having high will to win, whereas the lower mean score of low SES sportsmen suggest that they possess low will to win. The high SES sportsmen are having self positive image, good nutrition, proper education, high self confidence, rich exposure in sport competitions and better training facilities. Under these conditions they would having more confidence in his capabilities and the exposure to different sport events and competitions would instill a high sense of will to win among them.

Will to win among the sportsmen is very important factor that is related to varieties of social, economic and psychological background of them. If they have good social and economic status and provided healthy psychological environment in the family as well as in society, they are likely to grow emotionally intelligent individuals. Due to strong self esteem, they do develop will to win the games whatever they play. This has a bearing on better performance. Hence, government and responsible authorities should think positively to influence their socio-psychological background in order to develop high self esteem and will to win.

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A STUDY OF PERSONALITY PATTERNS OF JUDOKAS

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ABSTRACT

The present investigation was conducted on 90 judokas of different universities of India, who won medals in All India Inter University judo tournament (2006) in their respective weight categories, the judokas who lost in any round of championship and judokas of Himachal Pradesh University who also lost in any round of Inter College judo championship. The main objectives of the investigation were to study and compare the three groups of judokas viz., 30 Medal winners and 30 losers in All India Inter University and 30 Inter College losers of Himachal Pradesh University with respect to their total personality. For the purpose of analyses of data, statistical technique of 'analyses of variance' and 't' test was used. The results indicated that the medal winners and losers at All India Inter University judo tournament do not hold better personality as compared to the Inter College loser judokas.

INTRODUCTION

Personality has different meanings viz., conventional, legal, grammatical, ethical, religious, economic and psychological. In psychology the idea of personality is concerned not only with the total individual but also with individual differences. The term personality includes the integration of one's physical structure, intellectual abilities, attitudes and many other distinguishable characteristics. Thus, the term personality refers to physical, mental, social and emotional characteristics of an individual. It has many dimensions and is affected by heredity, learning, motivation,

emotion, intelligence, thinking, creativity and so many other major factors. For example: family environment that make an individual what he is at any particular moment. It is much broder than the colloquial usage where by an individual is said to have personality, if he is very domineering, impressive or attractive. According to Allport (1937) "Personality is the dynamic organization within the individual of those psychosocial system that determine his unique adjustment to his environment". The term 'dynamic' in the definition of personality indicates that the different characteristics of a person interact with and modify one another. It also points out that changes that can occur in the way a person behaves in a situation. Eysenck (1960) stated that personality is more or less enduring organization of a person's character, temperament, , intellect, physique, which determines his unique adjustment to the environment.

William (1978) from his study reported low personality variation within specific sports, such as fencing, ice hockey, track and lacrosse. He revealed that players at all levels were characterized as more reserved, intelligent, independent, aggressive and experimenting than normal population. He further, stated that selected personality traits are frequently associated with the elite female competitor generally tends to be more assertive, dominant, intelligent,reserved, achievement oriented and to have average to low emotionality. Somalingam (1982) investigated into personality factors of Indian junior boys, hockey team by administering 16 P.F. inventory. The findings revealed that they were warm-hearted, slow learner, bold and sociable, self-reliant, self-sufficient, conscientious and analytical. They were high on extraversion factor showing a level of inter personal communication.

Kamlesh et al. (1986) coducted a study on 38 males (28- general category and 10- reserved category) and 38 females (28- general category and 10 -reserved category) physical education partial. E.P.I. FORM-A was used to measure the two major dimensions of personality, extraversion and neuroticism. It was concluded that male and female physical education

majors, within their category groups differ significantly on extraversion and neuroticism, the two major dimension of personality. Female subjects, by nature were 'inward going'. It added that arbitrary distribution of subjects into 'general' and 'reserved' categories may be beneficial as a social phenomena, but psychologically it is not, for except on extraversion in case of general and reserved category female sub sample, no significant differences are visible any where. Korall (1997) administered the 16 P.F. inventory to 94 wrestlers including 28 Olympic wrestlers, 33 excellent collegiate wrestlers and 33 average or below average collegiate wrestlers. No significant personality difference among nervous levels of wrestlers was indicated. The wrestlers did differ from the normal population in tough mindedness, self-reliance and masculinity.

Baba and Randhawa (2003) investigated into personality traits of 60 national level sportsmen belonging to individual, combative and team sports discipline. He revealed that sportsmen belonging to individual sports discipline were more reserve, sober, tough minded than the sportsmen of team sports discipline (Hockey and Football). Further, it revealed that sportsmen of combative sports discipline were significantly more reserve and tough minded when compared with sportsmen of team sports discipline. The aim of the present investigation was to study and compare three levels of male judokas and their personality patterns.

Methodology:

Subject:

90 judokas on the basis of random sampling was selected, comprising the following three groups:

1 30 judokas who were winners under eight weight categories in All India Inter University judo championship held at Panjabi Universuty Patiala from 1st January to 6th January 2006.

2 30 judokas who lost in any round under eight weight categories in All India Inter University judo championship held at Panjabi Universuty Patiala from 1st January to 6th January 2006.

3 30 judokas who lost in any round under eight weight categories in H.P. University Inter College judo championship held at post graduate centre H.P. University Shimla-5.

PERSONALITY TEST

To measure the personality of judokas Neo- Five Factor Personality Inventory (adults) developed by Paul T. Costa. Jr. and Robert R.McCrae was used.

Statistical techniques: To analyze the data Analysis of Variance and 't' test were used in this study.

Data analysis and interpretation: The obtained data on 'Neo Five Factor Personality Inventory' for all the three groups of selected judokas were tabulated and analyzed as per the usability of 'analysis of variance' and 't' test.

Table 1: Summary of Analysis of Variance for Three Groups of Judokas with Respect to their Total Personality

Source	Sum of Squares	df	Mean Square	F
Between Groups	4159.400	2	2079.700	16.93*
Within Groups	10691.500	87	122.891	
Total	14850.900	89		

** Significant at 0.01 level of confidence*

'F'-value for three groups of judokas on the variable of total personality came out to be 16.923, which was significant at 0.01 level of confidence ('F' Table value at 0.01 level=4.85). In order to study the significance of differences between the means of the three groups, the 't'-test was further applied.

(a) Medal Winners and All India Inter University Losers

Table 2: 't'-value for All India Inter University Medal Winner and Loser Judokas with Respect to their Mean Scores on Total Personality

Groups	N	Mean	M_D	SD	SE_M	't'
Medal Winners	30	129.9333	5.7	10.6380	1.9422	1.979
Inter University Losers	30	135.6333		11.6545	2.1278	

Not significant at 0.05 level of confidence

't'-value for All India Inter University medal winners and loser judokas with respect to their mean scores on total personality came out to be 1.979, which is less than the table value of 't'= 2.00 for df =58 needed to be significant at 0.05 level of confidence. Thus, the obtained 't' is not significant at 0.05 level of confidence. This indicates that the personality of medal winner and loser judokas of All India Inter University are more or less same.

(b) Medal Winners and Inter College Losers

Table 3: 't'-value for All India Inter University Medal Winners and Inter College Loser Judokas with Respect to their Mean Scores on Total Personality

Groups	N	Mean	M_D	SD	SE_M	't'
Medal Winners	30	129.9333	16.4	10.6380	1.9422	5.887*
Inter College Losers	30	146.3333		10.9398	1.9973	

** Significant at 0.01 level of confidence*

The 't' value indicates that the medal winner and Inter College loser judokas differ significantly with respect to their mean score on total personality. Since, the mean score for the Inter College loser judokas was higher in comparison to medal winner judokas at All India Inter University tournament, it may be interpreted that the Inter College loser judokas have better personality in comparison to the medal winner judokas.

(c) All India Inter University Losers and Inter College Losers

Table 4: 't'-Value for All India Inter University Loser Judokas and Inter College Loser Judokas with Respect to their Mean Scores on Total Personality

Groups	N	Mean	M_D	SD	SE_M	't'
Inter University Losers	30	135.6333	10.7	11.6545	2.1278	3.67*
Inter College Losers	30	146.3333		10.9398	1.9973	

** Significant at 0.01 level of confidence*

The 't' value indicates that the All India Inter University losers and Inter College loser judokas differ significantly with respect to their mean scores on total personality. Since the mean score for the Inter College loser judokas was higher in comparison to All India Inter University losers judokas, it may be interpreted that Inter College loser judokas have better personality in comparison to All India Inter University judokas.

DISCUSSION

The results presented in the Tables 2, 3 and 4 indicated that All India Inter University medal winners and losers were the lower score in the total personality, whereas, inter college loser judokas were found higher score. These results indicated that medal winners and losers at All India Inter University level do not hold better personality as compared to the Inter College loser judokas. These results attributed that medal winner and loser judokas at All India Inter University were more serious because of their 'will' to win medals. They knew that losing in sports will cause a great loss to their personality. The loser judokas of Inter College tournament showing better personality never bothered about their achievement. They knew it that their winning or losing will not cause any effect to their personality. These players could afford either to be winners or losers.

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