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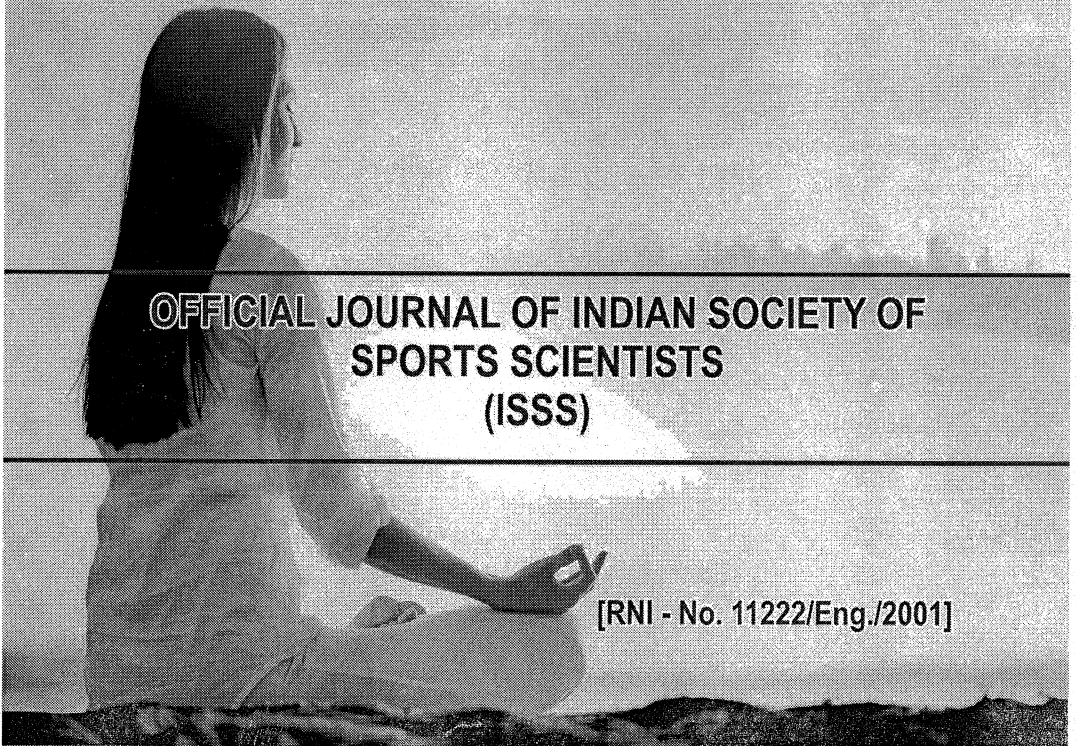
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PREFACE

Sports being the socio-cultural phenomenon have its own significance in the country in general and the immediate social environment in particular. The high achiever in sports will get greater importance in the society and hence, the social status a sportsman gets in the society is very high compared with a no sportsman. The achievement in sports depends on the needs, desires and intrinsic and extrinsic motives of sports person. Achievement motivation in sports is "an athlete's disposition to - approach or avoid a competitive situation" (Cox, 1990). Generally, a remarkable difference can be identified between casual and competitive sports performance. The performance in a competitive situation could often be troubled by personality characteristics of an individual.

Prof. N.B. Shukla

Editor

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IMPACT OF SELECTED ANTHROPOMETRIC AND PHYSICAL VARIABLES ON SKILL PERFORMANCE OF VOLLEYBALL PLAYERS

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Abstract

The purpose of the present investigation was to determine the impact of selected anthropometric and physical fitness variables to skill performance of male volleyball players. To achieve the purpose of the study, forty two male volleyball players (N=42) in the age group of 19 -28 years, participated in Tumkur University Inter Collegiate Volleyball Tournaments were, drawn as subjects, only those subjects, who were rated by North Carolina state university volleyball skills test battery to measure the skill performance were considered for the present study. The data collected, were statistically analyzed to find out the relationship of selected physical fitness variables to skill performance of the subjects. Correlation Coefficient values were computed to determine the relationship of each independent variable to skill performance ability (the dependent variable) of male volleyball players-The result of the study reveals that value of coefficient of correlation 'r' between performance scores of the volleyball players in speed, agility, explosive power, height, leg strength and skill performance ability showed a low positive correlation with skill performance of male volleyball players.

Key Words: Anthropometric variables. Physical fitness variables, skill performance.

Introduction

Sports are-as old as human society and it has achieved a universal following in the modern terms, it has now become an integral part of educational process and social activities. Millions of sports fans participate in different events round the year. Many

of them participate in sports for the fun, adventure, health, physical fitness and financial benefits linked with a high degree of popularity.

The players are creating and breaking new records in today's competitive sports. Traditionally the motto of Olympic festival is faster, higher and stronger is still alive in the field of physical education and sports. The aim of games and sports is fastly suited with every filed. The old records are not remaining on boards they are establishing time to time. The level of physical fitness and motor ability is increasing day to day because of development of science and technology. Today's Athletes are trained scientifically the equipments of training_ are also developed scientifically the 'dand-bethak' and 'akhada' activities become out dated and hi-tech gymnasium and health centre's takes its place. Now a day in training the physiotherapist entered with traditional 'gurus'. With the help of physiotherapist and psychologist fitness of individual players is modified increase. The modern coaching methods are prepared for the development of physical fitness, psychological ability and anthropometry.

The anthropometric provides us with the foundations and the private information concerning the characteristics of motor, which contribute about the possibility of evolving to reach high level of performance and achievement, they are measurements on the components of fat, muscles and bones to give the coaches, during their processes of selection and training, a vision more deep and specialized of the effect of the compound operations and functional physical contributing to the high levels of athletic achievement. It also considers specifications for anthropometric grounds that must be rationalized through the selection in sports for its close association with the access of emerging and evolving the levels of sporting prowess and that because of their impact on the level of the emergence of the physical characteristics and skill and functionality necessary to achieve those high levels of activity Sports Specialist.

Sports performance is the result and expression of the total personality of the sports man, the development of a sports man to enables to achieve high level of performance is usually concentrated in four areas namely physical power, social adjustment, psychological development and physiological efficiency. Different activities make different laments upon the organization with respect to circulatory, respiratory, metabolic, neurological and temperature regulating functions.

Objective of the study

To know the impact of selected anthropometric and physical variables on skill performance.

Hypothesis

1. There will be significant relationship between selected anthropometric measurements and volley ball skill performance.
2. There will be significant relationship between selected physical fitness components and volley ball skill performance.

Methodology**Experimental Variables****1. Anthropometric Measurements**

- a. Height b. Weight c. Arm length d. Leg length

2. Physical Fitness Variables

- a. Speed b. Flexibility c. Agility d. Explosive power

Procedure

Before conducting the test all the subjects were oriented and the purpose of the test and testing procedures were clearly explained to the volleyball players.

The reliability of data was ensured by establishing the instrument reliability, the tester's competency and subject reliability.

Each variable required different procedures and equipments. Height was measured using studio meter, Weight was measured using weighing machine, Arm length and leg length was measured using measuring tape, speed was measured on the basis of three electronic stop watches and through 30 meters flying start run, explosive power was calculated on the basis of vertical jump and agility was calculated by shuttle run.

Analysis And Interpretation Of Data

The purpose of the present investigation was to determine the relationship of selected anthropometric and physical fitness variables to skill performance of male volleyball players. To achieve the purpose of the study, forty two male volleyball players

(N=42) in the age group of 19 -28 years, participated in Tumkur University Inter Collegiate Volleyball Tournaments were drawn as subjects, only those subjects, who were rated by a North Caroline state university volleyball skills test battery to measure the skill performance were considered for the present study.

All the subjects under study were tested and measured for their performance in physical fitness variables, such as speed, agilityk-and explosive power. Four anthropometric measurements test items such as height, weight, arm length and leg length were administered to the selected / subjects. Their performance in the selected test items were measured and recorded. Their scores of performance in different test items represented the data in respect of the independent variables under consideration in the present study.

The skill performance of the criterion measures was determined by scores of the performance of the subjects to North Caroline state university volleyball skills test battery.

The data were collected, statistically analyzed to find out the relationship of selected physical fitness variables to skill performance of the subjects. Correlation coefficient values were computed to determine the relationship of each independent variable to skill performance ability (the dependent variable) of male volleyball players. The statistical analysis of data has revealed the following results that have been presented in table 1.

Table 1: Value of Coefficient of correlation for independent and dependent variables and their significance

Sl. No.	Variables	Correlation coefficient	Significance
01	Speed v/s skill performance	0.119	0.452
02	Agility v/s skill performance	0.117	0.462
03	Explosive power v/s skill performance	0.085	0.594
04	Height v/s skill performance	0.196	0.213
05	Weight v/s skill performance	0.197	0.210
06	Arm length v/s skill performance	0.137	0.387
07	Leg length v/s skill performance	0.325	0.036*

Note: Degrees of Freedom=40

The value of co-efficient of correlation 'r' between performance scores of the volleyball players with leg length was .325 with a positive correlation and the corresponding significance level of .036, shows a significant linear relationship of leg length to skill performance of male volleyball players.

The value of coefficient of correlation 'r' between performance scores of the volleyball players, in speed, agility, explosive power, height, weight and arm length and skill performance ability showed a low positive correlation with skill performance of male volleyball players. The correlation coefficients were found to be statistically non-significant.

Conclusions

The performance scores of the selected subjects is only three test items measuring different physical fitness variables such as speed, agility and explosive power have showed nonsignificant relationship with skill performance of male volleyball players. Hence hypothesis 1 is rejected.

The performance scores of the selected subjects in only four test items measuring ' different anthropometric variables such as height, weight, arm length and leg length in that, only leg length has shown a significant relationship with skill performance of male volleyball players. The relationship was found to be significant at 0.05 level, the hypothesis formulated in the study was partially accepted.

The result of the study may be due to the effect of training, diet, nutrition, food habits, practice, environmental, social background, regular routine, factors may be influenced for the performance in the present study.

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A COMPARISON OF PSYCHOLOGICAL STRESS OF MALE AND FEMALE HOCKEY PLAYERS

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Abstract

The purpose of the study was to investigate and compare the psychological stress among male and female Hockey players of Chhattisgarh. The subjects of the study were One Hundred Fifty Hockey players (Ninety males and Sixty females) of Chhattisgarh participated in State and National school games competitions during the year 2008-2010. Scale of Physical Stress (SPS) of Bisht Battery of Stress Scale, 1995 (BBSS) prepared and standardized by Bisht was used to measure the

four components of stress e.g. anxiety, frustration, pressure, and conflict. To assess the stress of male and female Hockey players on four psychological dimensions of stress, means and standard deviations, t-ratio, and one way analysis of variance were computed. The analysis of data revealed that male and female hockey players had variation in their frequency and quantity on four dimensions of stress i. e. frustration, conflicts, pressure, and anxiety. Male hockey players were found more frustrated, anxious, conflicted, and under pressure than their female counter parts.

Key words: Stress, Hockey Players, Frequency & Quantity

Introduction

Sports is a Psycho-physical activity full of tensions, anxiety, conflict, strain, and stress. In this modern era of competitive sports, teams and individual athletes play to win. And this spirit of winning the matches and individual events causes many psychological stress teams may win or lose under psychological stress so one has to prepare to train such a way that the members of the team or athletes are to bear all

types of stress and strains effectively which may deteriorate the sports performance (Singh, 1982).

The Concept of Stress has physiological, psychological and social aspects. The term stress was first used and popularized by Endocrinologist Dr. Hans Selye to describe the results of same kind of traumatic impingement on the organism. In fact he used the term to designate the event or trauma affecting the organism or individual later on, the term began to replace such words like anxiety, emotional distress conflict ego-threat, frustration, tension, lack of security and arousal etc. Which denotes some psychological and physiological conditions. But the word Stress remained popular because it tended to unify mind body relationship (Cratney, 1981).

Stress has been defined as a stimulus intervening or response variable and a behavior a mediator as an intervening variable and a behavior at a response variable according to Frost (1971), the stress is a state in which the natural homeostasis (equilibrium) of the body is disrupted. "May be threat to the organism, disease trauma, heat Cold Thirst, Fatigue may cause stress Emotional arousal can also bring about stress" stress is the process that involves the perception of a substantial imbalance between environmental demand and is perceived as having important consequences and is responded to with increased levels of anxiety. Hence Mac-Grath (1970) defines stress as occurring when there is an imbalance between the perceived demand and the perceived response capability of the organism. but the consequences must be perceived as important and it must be anticipated that failure to meet the demands will result in adverse consequence.

Anxiety, tension, stress, and other emotional disturbances are the symptoms of psychological stress, which are caused by frustration. The term frustration refers to the circumstances that result in the failure of a need to motivate to be satisfied when the satisfaction of the motive is thwarted, because we do not always reach the goal to which we aspire the thwarting or interference with goal directed behavior is often known as frustration. Whittaker (1970) says, interference with the satisfaction of motives is in the conflict of motives. If the individual wants two goals at the same time, he is likely to experience a great deal of discomfort and stress before making a choice.

Anxiety, stress, pressure, tension, and emotional excitement are all descriptive of the state of the organism of a sportsman, as it prepare him for some type of action. As it increases in quantity and intensity, the physiological mechanisms begins to operate and the organism is prepared to flee, to retreat, to fight or attack. It is a state of emotional excitement. In sports, it may be termed as "psyching-up" mental and physical preparation for a game or contest might involve all of these states i.e, anxiety, tension and emotional excitement.

Some times stress may also occur when the environment does not demand enough, when there is an under load rather than an overload of course stress like effects may occur from sensory deprivation social isolation or stimulus improvement According Spielberg (1972), Stress is limited to the magnitude of objective danger that is associated with the stimulus properties of a given situation.

Stress in sport is both physical and psychological . It is easier, However, to Chart the physical injuries that cause young athletes to leave the arena than it is to chart psychological injuries which may also be disabling Psychological stress often accomphies physical injury or precedes it. One example is provided in the lawsuit (New York Times December 6, 1981) of varies versus the Virginia polytechnic Institute over the death of Bob Vorhies after he had completed punishment drills following a football practice (Butt, 1987).

The purpose of the study was to ii)vestigate and compare the psychological stress among male and female Hockey players of Chhattisgarh. It was hypothesized that there may be significant difference among male and female hockey players in all the dimensions of stress.

Methodology

Selection of Subjects:

The subjects of the study were One Hundred Fifty Hockey players (Ninty males and Sixty females) belong to different schools of Chhattisgarh and who participated In State and National school games competitions during the year 2008-2010 age raging;from 14 to 19 yrs.

Instrumentation:

Scale of Physical Stress (SPS) of Bisht Battery of Stress Scale, 1995 (BBSS) prepared and standardized by Bisht was used to measure the four components of stress e.g. anxiety, frustration, pressure, and conflict. The questionnaire consists of 60 items in which there are positive and negative statements which indicate the frequency of stress score provides the adding these frequency and quantity stress score provides the total stress scores. Physical frustration components have 22 items in which seven items show the negative response and fifteen items have positive response physical conflict pressure have sixteen items out of which two are negative response and in physical anxiety there are seventeen items where two negative response were recorded. The test is highly reliable which is dependability efficient 0.91 Stability coefficient 0.83 and internal consistence 0.78.

The subjects were contacted at the site of practice field of hockey personally and necessary instructions were provided to the subject before the administration of test. Once the instructions are clearly understood by them, the SPS questionnaires were distributed to the respondents. As soon as a group of players completed the Questionnaire, the completed questionnaires were collected from the hockey players and it was verified that no questionnaire was left without being answered.

Results And Discussion

To assess the stress of male and female Hockey players on four psychological dimensions of stress, means and standard deviations, t-ratio, and one way analysis of variance with all the subjects were computed and data pertaining to this have been presented in Table 1 to 6.

Table 1 Descriptive Statistics Of Four Dimensions Of Psychological Stress Of Male And Female Hockey Players

S.No.	Dimensions of Stress	Males (N=115)	Females	(N=72)
		M SD	I M	SD
1.	Frustration	60.57 23.96	41.07	14.33
2.	Conflict	13.02 06.45	09.07	04.06
3.	Pressure	37.00 18.41	23.33	09.33
4.	Anxiety	46.12 19.59	25.88	15.17

The mean scores of Total sum of four dimensions of physical stress of as indicated male and female hockey players have been depicted in figures 1.

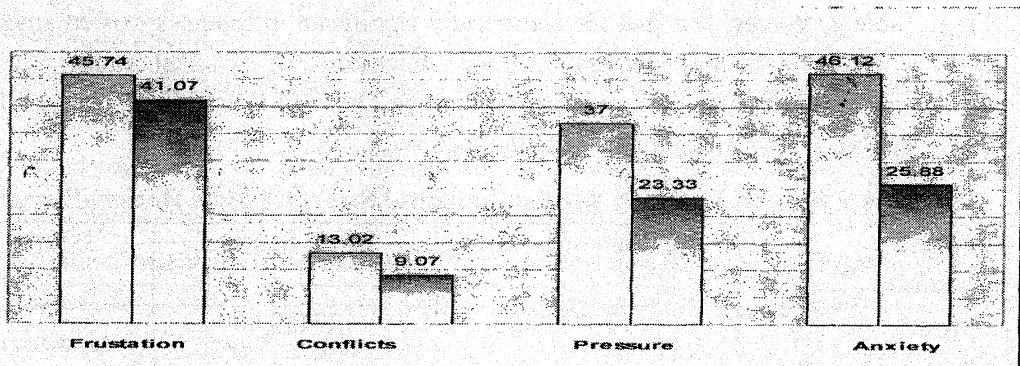


Fig. 1: Mean Scores of Total Sum of Frequency and Quantity on Four Dimensions of Physical Stress for Male and Female Hockey Players.

TABELE 2

Table 2 Analysis Of Variance On Four Dimensions Of Psychological Stress Among Male And Female Hockey Players

Dimensions	Source of Variance	df	Sum of Squares	Mean Square	F-ratio
Frustration	Between Groups	1	16844.46	16844.46	38.58*
	Within Groups	18	16844.46	436.90	21.37*
Conflict	Between Groups	1	80826.78	690.13	
	Within Groups	185	5974.62	32.29	
Pressure	Between Groups -	1	8270.16	8270.16	33.81 *
	Within Groups	185	45248.00	214.58	
Anxiety	Between Groups	1	18150.93	18150.93	55.29*
	Within Groups	185	60736.17	328.30	

*Significant at .05 level, $F_{.05}(1, 185) = 3.89$

From Table 2, It is evident that the statistically significant differences existed among male and female hockey players on four dimensions of physical stress i. e. . frustration, conflicts, pressure, and anxiety, as the obtained F-value of 38.58, 21.37, 33.81, and 55.29 was much higher than the required $F_{.05}(1, 185) = 3.89$.

Table 3 Analysis Of Variance For Psychological Stress Of Male Hockey Players

Source of Variance	df	Sum of Squares	Mean Square	F-ratio
Between Groups	3	137439.00	137439.00	
Within Groups	456	153962.38	337.69	135.69*
Total	459	291401.38		

*Significant at .05 level, $F_{.05}(3, 456) = 2.62$

From Table 3, It is evident that the statistically significant difference existed among male hockey players on physical stress was very high, as the obtained Fvalue of 135.69 was much higher than the required $F_{.05}(3, 456) = 2.62$.

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 male hockey players on four dimensions physical stress and the data pertaining to this have been presented in Table-4

Table 4: Significance Of Differences Among Male Hockey Players Between Ordered Paired Means On Four Dimensions Of Psychological Stress

Frustration	Conflicts	Pressure	Anxiety	Paired mean difference	Confidence Interval (C. I)
60.57	13.02	-	-	47.55*	4.05
60.57	-	37.00	-	23.57*	
60.57	-	-	46.12	14.45*	
-	13.02	37.00	-	23.98*	
-	13.02	-	46.12	33.10*	
-	-	37.00	46.12	9.12*	

*Significant at .05 level

It is quite obvious from the table 4, that highly significant differences were found on physical stress male hockey players of between Frustration - Conflicts followed by Pressure and Anxiety; Conflicts - Pressure; followed by Anxiety, and Pressure-Anxiety as the paired mean differences of 47.55, 23.57, 14.45, 23.98, 33.10 and 9.12 respectively were higher than the confidence interval (C.I.) of 4.05.

Table 5 Analysis Of Variance For Psychological Stress Of Female Hockey Players

Source of Variance	df	Sum of Squares	Mean Square	F-ratio
Between Groups	3	3712.15	12370.72	
Within Groups	284	38823.18	136.70	90.49*
Total	287	65935.33		

*Significant at .05 level, $F_{(3, 284)} = 2.64$

From Table 5, It is evident that the statistically significant difference existed among female hockey players on physical stress was very high, as the obtained Fvalue of 90.49 was much higher than the required F.OS (3, 284) = 2.64.

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 female hockey players on four dimensions physical stress and the data pertaining to this have been presented in Table-6.

Table 6 Significance Of Differences Among Female Hockey Players Between Ordered Paired Means On Four Dimensions Of Psychological Stress

Frustration	Conflicts	Pressure	Anxiety	Paired mean difference	Confidence Interval (C. L)
40.07	9.07	-	-	31.00*	5.48
40.07	-	23.33	-	16.74*	
40.07	-	-	25.88	14.19*	
-	9.07	23.33	-	14.26*	
-	9.07	-	25.88	16.81*	
-	-	23.33	25.88	2.55*	

*Significant at .OS level

It is quite obvious from the table 6, that there were significant differences on physical stress among female hockey players of between Frustration - Conflicts followed by Pressure and Anxiety; Conflicts - Pressure; followed by Anxiety, as the paired mean differences of 31.00, 16.74, 14.19, 14.26 and 16.81 respectively were higher than the confidence interval (CI) of 5.48. But the mean differences between Pressure - Anxiety was not significant at 0.05 level, as the confidence interval of 5,48 was higher than the mean difference of 2.55.

Discussion

The male and female hockey players had significant differences in their frequency and quantity for the set of four dimensions of physical stress . Males hockey players were found more frustrated, anxious, conflicted, and under pressure than their female counter parts.

The analysis of variance with male and female hockey players as a whole and four dimensions of physical stress indicated that significant differences existed among male and female hockey players in their frequency and quantity for the set of four dimensions of physical stress .

Significant differences were found among male and female hockey players in four dimensions of physical stress. It was also found that both sex gymnasts were more under frustration followed by anxiety, pressure and conflicts.

It was hypothesized that there may be significant difference among male and female hockey players on four dimensions of physical stress is partially accepted. But, it was also found that both sex hockey players were more under frustration followed by anxiety, pressure and conflicts. pressure than their female counter parts.

Conclusions

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

1. The male and female hockey players had variation in their frequency and quantity on four dimensions of stress i. e. frustration, conflicts, pressure, and anxiety.
2. Male hockey players were found more frustrated, anxious, conflicted, and under pressure than their female counter parts.
3. Male and female hockey players as a whole had variation on the set of four dimensions of stress.
4. Male and female hockey players were found more under frustration followed by anxiety, pressure and conflicts. dimensions of stress.

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A COMPARATIVE STUDY OF PHYSICAL FITNESS OF FORWARD AND DEFENCE LINE WOMEN HOCKEY PLAYERS

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Abstract

The purpose of the present study was to compare and investigate the physical fitness of forward and defense line women Hockey players. A sample of 100 women hockey players (50 forward lines and 50 defense line) ranging in ages between 16 to 19 years, studying in Govt. Kaniya Shiksha parisar, St. John's Hr. Sec. School, and Ambika Mission Girls High School of Ambikapur districts were selected as subjects for the study. All the subjects were tested in AAHPER youth fitness test items i.e.

Flexarm hang, Bent knee sit-ups, Shuttle Run, Standing broad jump, 50 yard dash and 600 yard run to collect data in Muscular Strength and endurance of Arms and Shoulders, Strength and Endurance of abdomen, Speed and Agility, Explosive Strength of legs, Speed and Explosive Strength, and Cardio-Vascular Endurance. To find out the significance of differences between forward and defense women hockey players belong to Ambikapur district, means, standard deviations, and t-ratio were computed for obtained data by using AAHPER Physical Fitness Test. The analysis of data revealed that the defence line women hockey players were better than forward line women hockey players on Bent knee sit-ups-abdominal strength, Shuttle run-agility, Standing broad jump-explosive leg strength, 60yard dash-speed and 600 yard run-cardiovascular endurance. Forward line women hockey players were having more arm and shoulder strength than their counter part.

Introduction

Physical fitness is the state of body in which a person can do work for a longer duration effectively and efficiently, without undue fatigue. Good health provides sound and solid foundation on which fitness rests and at the same time fitness provides one of the most important key to health and living one's life to fullest. The importance of the fitness of body is obvious from the following statement of the Plato which places body and the soul as the equal counter parts.

Physical fitness is one aspect but from the physical education point of the view it assumes a dominating role. Physical fitness is the capacity to meet the present and the potential challenges of life with success. Every person has a different level of physical fitness which may change with time, place of work, situation and there is also an interaction between the daily activities and the fitness of an individual, the point is where to put the level of optimum fitness.

Hockey is known to be the fastest game Hockey player needs to move fast with or without the ball to beat or dodge her/his opponent and gain advantage or goal. So players always need speed with control in the hockey game.

Hockey game demands high endurance ability in spite of its anaerobic nature. A player has to run to 70 min. up and down in the hockey ground with speed which needs endurance that is speed endurance

Every game or sports requires physical fitness. In hockey, forward as well as defence line needs speed, strength, flexibility, endurance and agility. Which are the basic components of physical fitness? The forwards have to run throughout the ground and have to make proper ups and downs in the whole ground. Defense players have to substation their strength and stamina in tackling the attacks and the quick movement of the opposite players. Thus, hockey, like football, is a fast game in which players have to become physically fit in order to struggle for a long duration of seventy minutes.

Review of Related Literature

Ravi (1992) told that physical fitness play a very important role. A physical fit athlete is better and a conditioning gives a winning edge in soccer. Singh (1992) indicated that the seven component of physical fitness did not have significant

differences among the boxer of different levels. Kastler (2001) showed that significant improvement was achieved in physical fitness components i.e. strength endurance was not significantly improved, University men compared favourably with army training program. Wedman (2002) indicated the difference in the mean number of daily steps taken by students who qualified & students who did not qualify programs active lifestyle award national physical fitness award & health fitness award. Frank (2004) showed that boys with rural Para child or urban experience did no differ in physical fitness but boys from urban and Para child school superior in sports skills. Das et. al. (2007) indicated that among, the physical fitness components only leg power showed significant higher value in sprinters than football players.

The purpose of the present study was to compare and investigate the physical fitness of forward and defence line women Hockey players. It was also hypothesized that there will be no ignificant difference in the score of the flex arm hang (arm shoulder strength), sit-ups (abdominal strength), standing broad jump (power of leg muscles), shuttle run (agility), 50 yards (speed) and 600 run/ walk (endurance) of forward and defence line women hockey players.

Methodology

Selection of Subjects:

In the present study the population was compare by forward and defense line national schools level women hockey players and data was collected from 100 women hockey players (50 forward lines and 50 defense line) from Govt. Kaniya Shiksha parisar, St. John's Hr. Sec. School, and Ambikapur Mission Girls High School of Ambikapur districts.

Tools Used:

AAPHER Youth Physical Fitness Test was used to measure status and achievement in physical fitness. Youth Fitness test items along with the elements tested by each item.

Test Items and their parameters:

1. Flexed arm hang : To measure the muscular strength and muscular endurance of arms and shoulders.
2. Bent knee sit ups : To measure the muscular strength and endurance.

3. Shuttle run : To measure the speed and agility.
4. Standing broad jump: To measure the explosive strength of legs.
5. 50 yard dash : To measure the speed and explosive strength.
6. 600 yard run : To measure the cardio-vascular endurance.

Results and Discussion

In order to find out the significance of differences between forward and defence women hoc4-y players belong to Ambikapur district, means, standard deviations, and t-ratio were computed for obtained data by using AAPHER Physical Fitness Test. To check the obtained t-ratio, the level of significance was set at .05 level and data pertaining to this have been presented in Table 1 to

Table 1

Descriptive Statistics Of Various Components Of Physical Fitness Of Forward And Defence Line Women Hockey Players

Physical Fitness Test variables	Forward line (N=50) Mean		Defence line N=50) Players	
	Players	SD	Mean	SD
Flex-arm hang ~	15.32	8:47	12.51	8.53
Bent knee sit-ups	28.26	5.91	30.18	8.28
Shuttle run	11.74	0.34	11.78	0.42
Standing broad jump	170.02	13.29	170.86	15.78
50 Yard dash	09.70	0.95	09.86	01.00
600 Yard Run	02.22	0.24	02.35	0.58

The mean scores of various components of physical fitness of forward and defence line women hockey players belong to Ambikapur district have been depicted in figures 1 to 6.

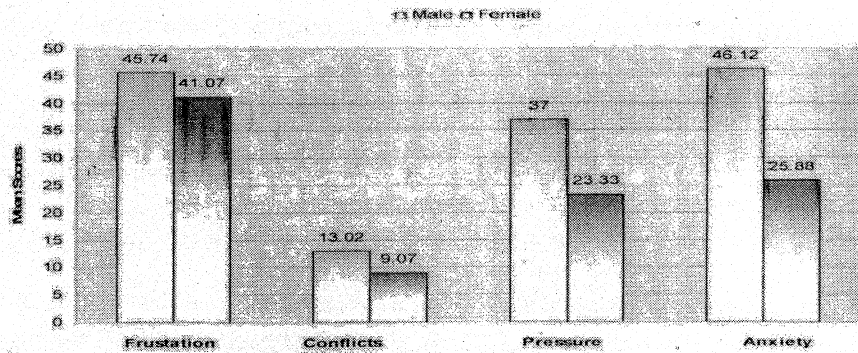


Figure 1: Comparison of flex arm hang (strength and endurance of shoulders) of forward line and defence line women hockey players.

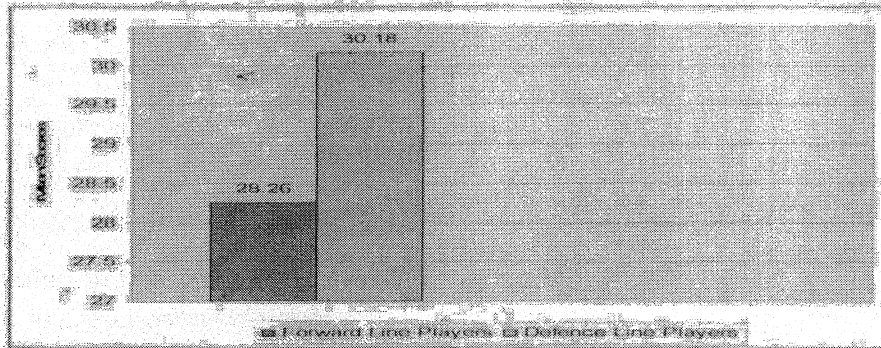


Figure 2: Comparison of sit-ups (abdominal strength) of forward line and defence line women hockey players.

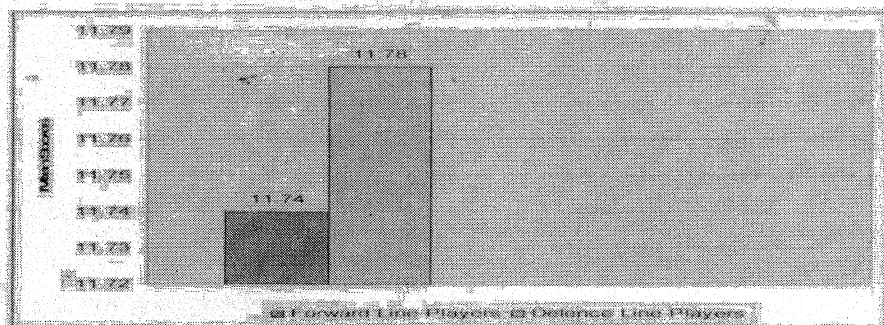


Figure 3: Comparison of shuttle run (speed and agility) of forward line and defence line women hockey players.

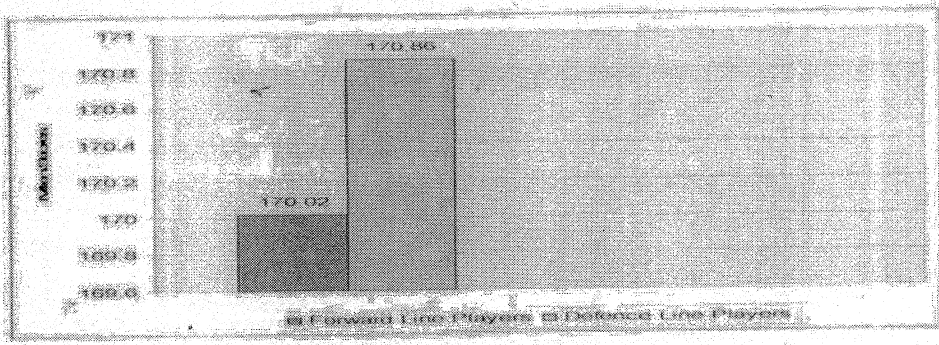


Figure 4: Comparison of standing broad jump (explosive strength of legs) of forward line and defense line women hockey players

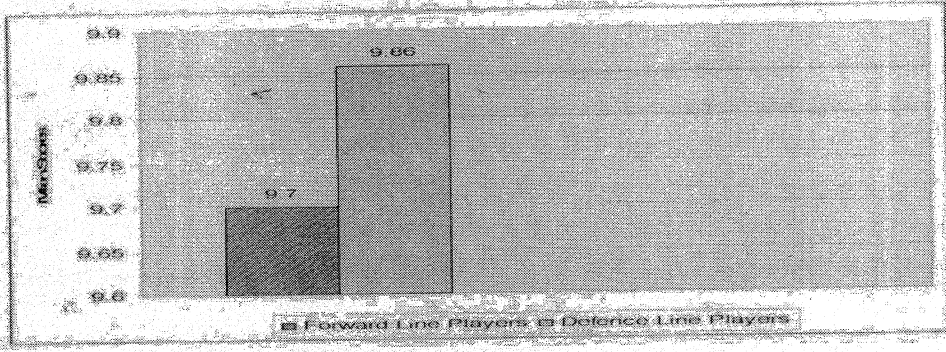


Figure 5: Comparison of 50 yard run (speed and agility) of forward line and defence line women hockey players

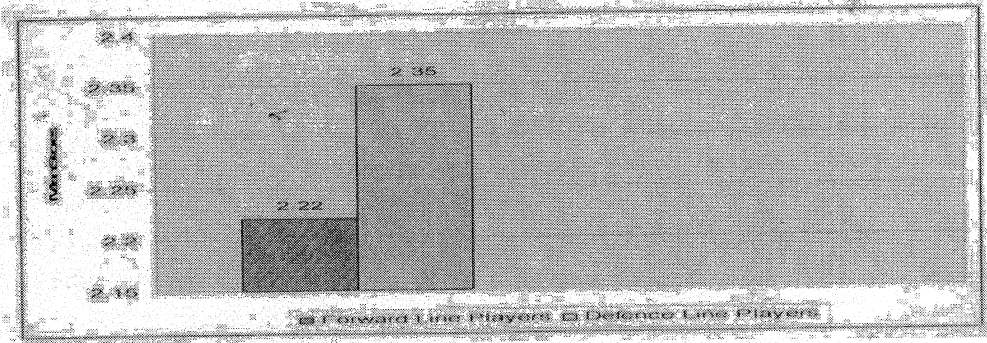


Figure 6: Comparison of 600 yard run (endurance) of forward line and defence line women hockey players

Table 2 Significance of Difference between Mean Scores of Flex Arm Hang Of Forward and Defense Women Hockey Player

Group	N	Mean	MD	DM	t-ratio
Defense Line	50	15.32	2.81	1.74	1.61
Forward Line	50	12.51			

Insignification level at 0.05 (98) = 1.98

It is evident from Table 2, that there was no statistically significant difference between the means of flexed arm hang (arm shoulder strength and endurance) of forward line and defence line women hockey players, as the obtained t-value of 1.61 was less than the calculated value of $t_{.05(98)}=1.98$.

Table 3 Significance of Difference between Mean Scores of Sit-Ups of Forward and Defense Women Hockey Player

Group	N	Mean	MD	DM	t-ratio
Defense Line	50	28.26	1.92	1.29	1.48
Forward Line	50	30.18			

Insignificant level at 0.05. $t_{.05(98)} = 1.98$

It is evident from Table 3, that there was no statistically significant difference between the means of sit-ups (abdominal strength) of forward line and defence line women hockey players, as the obtained t-value of 1.48 was less than the calculated value of $t_{.05(98)}=1.98$.

Table 4 Significance of Difference between Mean Scores of Standing Broad Jump of Forward and Defense Women Hockey Player

Group	N	Mean	MD	DM	t-ratio
Defense Line	50	170.02	0.84	2.67	0.31
Forward Line	50	170.86			

Significant level at 0.05 $t_{.05(98)} = 1.98$

Table 4 indicates that mean values of standing broad jump (explosive strength of legs) of forward line players and defence line women hockey players are 170.02 and 170.86 respectively. Since t-value is 0.31 which is not significant at 0.05 level of

confidence with 9,8 degrees of freedom thereby indicating that there is no statistical significant difference.

Table 5 Significance of Difference between Mean Scores of Shuttle Run of Forward and Defence Women Hockey Player

Group	N	Mean	MD	DM	t-ratio
Defense Line	50	11.74	0.40	0.08	0.50
Forward Line	50	11.78			

Insignificant level at 0.05. $t_{.05}(98) = -1.98$

Table 5, reveals that there was no statistically significant difference between the means of shuttle run (in seconds) of forward line and defence line women hockey players, as the obtained t-value of 0.50 was much less than the calculated value of $t_{.05}(98) = 1.98$.

Table 6 Significance of Difference between Mean Scores of 50 Yard Run of Forward and Defense Women Hockey Player

Group	N	Mean	MD	DM	t-ratio
Defense Line	50	8.70	0.16	0.16	1.00
Forward Line	50	9.86			

Insignificant level at 0.05. $t_{.05}(98) = 1.98$

It is evident from Table 6, that there was no statistically significant difference between the means of 50 yard run of forward line and defence line women hockey players, as the obtained t-value of 1.00 was less than the calculated value of $t_{.05}(98) = 1.98$.

Table 7 Significance of Difference between Mean Scores of 600 Yard Run of Forward And Defense Women Hockey Player

Group	N	Mean	MD	DM	t-ratio
Defense Line	50	2.22	0.13	0.08	1.63
Forward Line	50	2.35			

Insignificant level at 0.05. $t_{.05}(98) = 1.98$

Table 7 indicates that mean scores of 600 yard run (in minutes-sec.) of forward line and defence line women hockey players are 2.22 and 2.35 respectively. Since t-value

is 1.63 which is not significant at 0.05 level of confidence with 98 degrees of freedom thereby indicating that there is no statistical significant difference.

Discussion of Hypothesis

The above findings stated that there will be no significant difference in the score of the flex arm hang (arm shoulder strength) and standing broad jump (explosive strength of legs) of forward line and defence line women hockey players. But the significant differences were found in the sit-ups. (abdominal strength), shuttle-run (speed and agility), 50 yards (speed), and 600 yards run (Endurance) of forward line and defense line women hockey players. So, the scheduled ypothesis is partially accepted.

Conclusions

Within the limitation of the present study, following conclusions were drawn:

1. The defence line women hockey players were better than forward line women hockey players on Bent knee sit-ups-abdominal strength, Shuttle run-agility, Standing broad jump-explosive leg strength, 60yard dashspeed and 600 yard run-cardiovascular endurance.
2. Forward line women hockey players were having more arm and shoulder strength than their counter part.

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YOGA IN THE TREATMENT OF ANXIETY AND DEPRESSION

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'One way to conceptualise depression is a pathological stress response gone awry...'

Charles B. Nemeroff; 1996.

Depression is a 'universal cross-cultural response to stressful events, particularly when the stress is chronic or the individual has no control over the situation.' Stress activates parts of the brain (the hypothalamic-pituitary-adrenal (HPA) axis) that are closely linked to the onset of depression (which is also characterized by excessive activity of the HPA axis). This paper examines yoga as a treatment that modifies the stress response, improving the patient's ability to cope with stress, and leading to an antidepressant effect.

According to a survey conducted by the UK Office for National Statistics (ONS) in 2000, anxiety disorders are among the most common mental health problems found in the United Kingdom. Heightened anxiety levels are a key symptom of anxiety and depressive disorders.

Since the 1970s, non-pharmacological therapies have been studied in the West as possible treatments for depression and anxiety. Although yoga has many Western followers (a US national survey conducted by Saper et al in 2004 estimated that 7.5% of American adults had practised yoga at least once and that almost 4% had regularly practised yoga in the previous year), medical literature and studies have tended to focus on other forms of therapy.

Owing to their poor methodology, some researchers have criticised many of the earlier studies that evaluated yoga's therapeutic benefits ' and have suggested that although the evidence in these studies is appealing, the methodological issues necessitate the carrying out of further, better designed research into the benefits of yoga for mental health disorders. However; Khalsa's (2004) analysis⁵ of recent studies showed that an increasing number have used randomized controlled tests -- a standard methodology for clinical trials.

Nevertheless, many reviews of yoga practices suggest that they can decrease stress responses and may be useful therapies for anxiety and depression.

In their 2008 study on yoga as a treatment for mood and anxiety disorders, T. da Silva et al argued that although some methodological problems persist in recent studies, yoga may be as effective as medication in treating depressive disorders. Furthermore, they suggested that the combined effect of medication and yoga may be more effective than medication alone. In anxiety disorders, they claimed that yoga may indeed be the superior treatment for some patients. They judged that 'yoga appears to be superior to no treatment [...] and may benefit mood and anxiety symptoms associated with medical illness'.

Stress response control and Yoga

Further studies have suggested that yoga has the ability to modify and control the stress response systems of subjects. This is considered, in turn, to have an impact on the subject's physiology --- for example, reducing the heart rate, lowering blood pressure, and controlling breathing. A 2006 German study that studied cardiac modulation among healthy yoga practitioners suggested that yoga helps regulate heart rate, 'which an indicator of the body's ability to respond to stress more flexibly.'

A study by researchers at the University of Utah in 2008 focused on the varied responses to pain in 42 subjects. Noting that people who are unable to effectively control their stress responses also experience increased sensitivity to pain, they recruited 14 people with fibromyalgia (a condition in which the severity of pain experienced by sufferers is regarded as being linked to stress byname researchers), 16 healthy volunteers, and 12 experienced yoga practitioners.

Varying levels of pressure were applied to subjects' thumbnails, and they were asked to respond when they perceived pain. MRIs were also used to detect activity in areas of the brain connected with pain response. As anticipated, the subjects perceived pain at different pressure levels. Those with fibromyalgia perceived pain at lower pressure levels than the subjects. By contrast, the yoga practitioners' perceived pain tolerance was highest, and their pain-related brain activity was the lowest of the subjects. The study shows the value yoga has in regulating responses to pain and, therefore, stress responses.

Post-Traumatic Stress Disorder and Yoga

Researchers are investigating the use of yoga with patients suffering from post-traumatic stress disorder (PTSD). It is estimated that approximately 20% of former US soldiers who served in Iraq or Afghanistan presently display symptoms of PTSD". Researchers at the Walter Reed Army Medical Center in Washington D.C. are promoting yoga to soldiers returning from combat. One of the centre's psychologists, Dr. Kristie Gore, feels that soldiers will be more receptive to yoga-based therapy than traditional psychotherapy and uses yoga and yogic relaxation in PTSD awareness courses.

Yoga, quality of life, and mood alteration

How yoga actually improves mood is not fully understood. However, the available evidence suggests that its benefit is similar to that of exercise and relaxation techniques.

In a study that was conducted between 2006-2007, M. Javnbakht et al] 13 studied 65 women who although not diagnosed with clinical depression had described themselves as "emotionally distressed" and had been referred to a yoga clinic. The experimental group of 34 women took twice weekly 90 minute yoga classes for two months. The control group of 31 women did not receive yoga classes.

When the experimental group was compared to the control group, women who participated in yoga classes showed a significant decrease in anxiety. "The researchers concluded that participation in a two-month yoga class can lead to significant reduction in perceived levels of anxiety in women who suffer from anxiety disorders' and suggested that 'yoga can be considered as a complementary therapy or an alternative method for medical therapy in the treatment of anxiety disorders.

A 2005 study at a New Hampshire psychiatric hospital examined the effects of a single yoga class on 113 of its patients. The subjects suffered from a range of mental illnesses, including schizophrenia, clinical depression, and bipolar disorder. Prior to the class, subjects responded singly to a standard 65-item questionnaire. After the class, subjects were asked to recomplete the questionnaire, and their average levels of tension, anxiety, depression, anger, hostility, and fatigue were seen to have dropped

significantly. Furthermore, it was found that those patients who chose to participate in additional classes experienced similar short-term positive effects.

According to Dr Michael Miller of Harvard Medical School¹⁹, other controlled trials of yoga practice have demonstrated improvements in mood and quality of life for the elderly, people caring for patients with dementia, breast cancer survivors¹⁸, and patients with epilepsy¹.

NiyantritSwas-Praswas and its benefits

Studies have shown that *niyantrit swas praswas* has the possibility to reduce levels of depression. One study 19 compared 30 minutes of daily Sudarshan Kriya yoga (SKY) breathing with other therapies in 45 people hospitalised for depression. After four weeks of treatment, 67% of those using-SKY breathing reported an improvement in their condition.

A second study 21 examined SKY's effects on depression in 60 alcohol-dependent men. Subjects were given either two weeks of SKY instruction or standard alcoholism treatment. After three weeks, subjects reported a 75% drop in depressive symptoms in the SKY group compared with 60% in the standard treatment group. In addition, the levels of two stress hormones 22 were found to have dropped in the SKY group. This was not the case for the control group. This research suggests that SKY might be an effective treatment for the depressive symptoms common to the early stages of alcoholism recovery.

The subjective nature of yoga and mental disorders

Although the above studies verify the effectiveness of yoga in the treatment of certain depressive and anxiety disorders, it should be remembered that the practice of yoga is an internalised and subjective experience. Similarly, the way in which people suffering from depressive illness or anxiety experience their condition is often personal, internal, and subjective. In short, the benefits of different treatments are subjectively interpreted by those suffering from depression or anxiety. In light of this, the perceived beneficial effects of yoga may in fact produce real and quantifiable improvements in those suffering from depressive disorders. Indeed, the recent research identified above is beginning to provide both qualitative data and experimental verification of the benefits of yoga for people with depressive symptoms and anxiety.

Conclusion

This paper has demonstrated that although criticisms have been made of the methodologies used in earlier studies on the benefits of yoga in treating anxiety and depression, efforts have been made in recent years to address these failings. Furthermore, there is an increasing body of evidence that yoga has beneficial therapeutic uses in the control of stress responses and mood improvement. Although much is still to be learned about precisely how yoga affects the physiological and psychological condition of those suffering with depressive disorders, the increasingly widespread acceptance and use of yoga as a therapy to alleviate depressive symptoms is encouraging. The promotion of yoga as a primary therapy in the West depends upon further and more rigorous empirical research being carried out both here and abroad. However, it should also be stressed that the subjective way in which both yoga practice and depressive illnesses are experienced is essential to an understanding of how yoga can most effectively be used as a treatment.

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EFFECT OF TRIGGER OPERATION EXERCISES ON SHOOTING PERFORMANCE OF HIGH SCHOOL GIRLS

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Abstract

The purpose of the study was to find out effect of trigger operation exercises on shooting performance of high school Girls. To achieve this purpose of the study carried out in the Shri Shiv Chaitanya Academy Bora Kalan, Gurgaon. Forty (40) Girls age 14 to 17 years were randomly assigned two groups Experimental group and Control group consists of 20 students each. Pre-test and post test with the use Rifle shooting accuracy test battery for the assessment of the following variables Firing within time and Firing own time. Experimental group has received an eight week training of trigger operation exercises. Control group did not participate in any of the training programme. After the experimental period is over the subjects of all the groups were post tested with the Rifle Shooting Accuracy Test Battery. The data were analysed primarily by the descriptive statistics and 't' value was used. The significance level was set at 0.05. Results of the study showed that shooting performance of trigger operation exercises, helped to improve the performance of Firing Own time Performance (1.02^ , $p < 0.50$) and shooting performance of trigger operation exercises helped to improve the performance of Firing within Time Shooting performance ($0.82^* < 0.05$). whereas control group did not show any improvement in all aspects.*

Introduction

The gun is generally classified according to use, size and tradition. The basic distinction is between Small arms and Artillery. Any gun below a 20 millimetre bore size is generally classified as small arm. There is no internationally agreed definition of small arms and light weapons. Small arms and light weapons are man portable weapons made or modified to military specifications for use as lethal instruments for war. Small arms are broadly categorized as those weapons intended for use by individual members of armed or security forces. The physical fitness is the first basic head of an individual for more practice is must. Trigger operation exercises one, such form of shooting performance which involves the above dimensions of integral

development of the student. Keeping in mind to introduce into the school, rifle shooting training was the best suited as weapons for shooting performance. The researcher had entitled the problem of the study as effect of small arms training on shooting performance of high school Girls.

Objectives

The objective of the study was to find the effect of the trigger operation exercises on shooting performance of high school Girls

To study the effect of eight weeks training of trigger, operation exercises on the Firing own time and Firing within time variables of shooting performance of the experimental group.

Hypothesis

H 1: There was no significant difference between Firing own time and firing within time shooting performance of Girls

Methodology

Forty (40) male students were studying in Shri. Shiv Chaitanya Academy Bora Kalan, Gurgaon was selected as a subject for the present study in which (40) subjects.

Research Design

The researcher was used in research equal two group research design was used. The researcher has selected randomly sample.

Subject

The investigation was carried out in the Shri. Shiv Chaitanya Academy Bora Kalan, Gurgaon. Forty (40) girls age 14 to 17 years were randomly assigned to two groups Experimental group and control group consists of , 20 students. Pre-test' and post test with the use Rifle shooting accuracy test battery for the assessment of the following variables Firing within time and Firing own time. Experimental group has received an eight week training of trigger operation exercises. The experimental group was taught various trigger operation exercises steps one by one and the steps were coordinated in various ways to illustrate various firing and aiming positions in a sequence. The rifle shooting accuracy movements was related to, Co- ordination between eye and muscles, holding of rifle Firing a shoot, Follow through and Declaration. The control

group did not participate in any of the training programme. After the experimental period is over the subjects of all the groups were post tested with the Rifle Shooting Accuracy Test Battery.

Variables Dependent Variables

No. Test Items	Elements Test
1 Firing within time -	Bull hitting
2 Firing own time -	Speed and accuracy

Independent Variables:

A set of selected trigger operation exercises for Experimental group were considered as the independent variables in this study.

Data analysis: the data were analyzed primarily by the descriptive statistics and 't' value was used

Results and Discussion

The main objective of the study was set the effectiveness of trigger operation exercises on shooting performance of an experimental group of high school Girls and compare the obtained results with that control group.

Table 1

Mean, Standard deviation and 't' value of pre and post- test of Rifle shooting accuracy test for the assessment for Firing Own Time Shooting performance

	Number	Mean	S.D.	t-ratio	T value
Pre-test	20	105.98	3.46	1.02	(0.05)
Post- test	20	103.93	7.52		1.02

*P<0.05

Result on Firing of Own time shooting performance of trigger operation exercises helped to improve the performance of Firing Own time Performance (1.02*, p<0.50)

Table 2

Mean, Standard deviation and 't' value of pre and post- test of Rifle shooting accuracy test for the assessment for Firing Within Time Shooting performance.

	Number	Mean	S.D.	t-ratio	T- Value
Pre-test	20	24.26	5.42	0.82	(0.05)
Post- test	20	22.5	6.32		0.82

Result on Firing of Within time shooting performance of trigger operation exercises helped to improve the performance of Firing within time Shooting performance (0.82* <0.05): But control group did not show any changes in all aspects.

Conclusion

Trigger operation exercises was to improve the shooting performance of Firing own time. And trigger operation exercises was to improve rifle shooting accuracy test for the assessment for Firing within Time Shooting performance of school. But control group did not show any changes in all aspects.

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IMPACTS OF YOGA ON THE HEALTH

Prof. N B Shukla, Tushar Dhar Shukla, Poonam Shukla and Garima

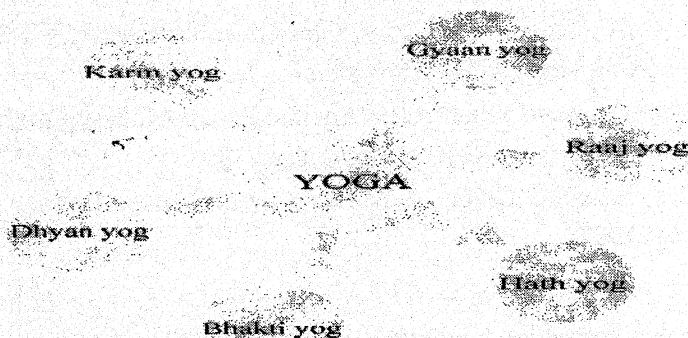
Abstract

The word 'Yoga' has been derived from the Sanskrit word i.e "yuj" which means to unite add or bind socioeconomic conditions, where the relationship with disease will probably vary by economic status. Excellent access to primary health-care services among the poor may mitigate inequalities in health derived from socioeconomic position. The aim of this report is to present and summarise the views of yoga in the poor that relate to health. We hope this will provide insights for health policy-makers into the reality of poor people's lives and the impact of yoga on illhealth.

Introduction :

Yoga is one of the oldest in India. It keeps us mentally and physically fit. Yoga has been referred to in our Vedas, Puranas, Upanishads and the Geeta. In ancient time, this word was associated with sadhna or efforts to control the body, mind and emotions for attaining unity with God or Parmatma. The 'Bhagwad Geeta' refers to various forms of Yoga as Saankhyayog, karmyog, dhyanyog, gyaanyog and bhakti yog. On the basis of our ancient texts, the main path of yoga such as.

Path of Yoga



Yoga is the science of right living and, as such, is intended to be incorporated in daily life. It works on all aspects of the person: the physical, vital, mental, emotional, psychic and spiritual. This unity or joining is described in spiritual terms as the union

of the individual consciousness with the universal consciousness. On a more practical level, yoga is a means of balancing and harmonising the body, mind and emotions. This is done through the practice of asana, pranayama, mudra, bandha, shatkarma and meditation, and must be achieved before union can take place with the higher reality.

The science of yoga begins to work on the outermost aspect of the personality, the physical body, which for most people is a practical and familiar starting point. When imbalance is experienced at this level, the organs, muscles and nerves no longer function in harmony, rather they act in opposition to each other. For instance, the endocrine system might become irregular and the efficiency of the nervous system decrease to such an extent that a disease will manifest. Yoga aims at bringing the different bodily functions into perfect coordination so that they work for the good of the whole body. From the physical body, yoga moves on to the mental and emotional levels. Many people suffer from phobias and neuroses as a result of the stresses and interactions of everyday living. Yoga cannot provide a cure for life but it does present a proven method for coping with it. The yoga we know today was developed as a part of the tantric civilization which existed in India and all parts of the world more than ten thousand years ago.

In archaeological excavations made in the Indus Valley at Harappa and Mohenjodaro, now in modern Pakistan, many statues have been found depicting deities resembling Lord Shiva and Parvati performing various asana and practising meditation. These ruins were once the dwelling place of people who lived in the pre-vedic age before the Aryan civilisation started to flourish in the Indus subcontinent. According to mythical tradition, Shiva is said to be the founder of yoga and Parvati his first disciple. Sage Patanjali's treatise on raja yoga, the Yoga Sutras, codified the first definitive, unified and comprehensive system of yoga. Often called the eight-fold path, it is comprised of yama, self-restraints, niyama, self-observances, asana, pranayama, pratyahara, disassociation of consciousness from the outside environment, dharana, concentration, dhyana, meditation and Samadhi, identification with pure consciousness.

In the 6th century BC, Lord Buddha's influence brought the ideals of meditation, ethics and morality to the fore and the preparatory practices of yoga were ignored. However, Indian thinkers soon realised the limitations of this view. The yogi Matsyendranath taught that before taking to the practices of meditation, the body and

its elements need purifying. He founded the Nath cult and the yogic pose matsyendrasana was named after him. His chief disciple, Gorakhnath, wrote books on hatha yoga in the local dialect and in Hindi.

Indian tradition previously required that original texts be written in Sanskrit. In some cases they clothed their writings in symbolism so that only those prepared and ready for a teaching would be able to understand it. One of the most outstanding authorities on hatha yoga, Swami Swatmarama, wrote the Hatha Yoga Pradipika, or "Light on Yoga", in Sanskrit, collating all extant material on the subject. In doing so, he reduced the emphasis on yama and niyama from hatha yoga, thereby eliminating a great obstacle experienced by many beginners. In the Hatha Yoga Pradipika, Swatmarama starts with the body and only later, when the mind has become more stable and balanced, are self-control and self-discipline introduced.

Health and the Poor:

Health's in the broad sense of the word do not merely mean the absence of disease or provision of diagnostic, curative and preventive services. It also includes as embodied in the WHO definition, a state of physical, mental and social well being. The harmonious balance of this state of the human individual integrated into his environment constitutes health, as defined by WHO. The state of health implies the notion of "perfect functioning" of the body and mind. Health is a fundamental human right. Health is the essence of the productive life, and not the result of ever increasing expenditure on medical care. Health is intersectoral.

Health is an integral part of development. Health is central to the quality of life. Health involves individuals, state and international responsibility.

First, poor people view and value their health in a holistic sense, as a balance of physical, psychological and community well-being. This view, consistent with the WHO definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity", is remarkably

consistent across age, gender, nationality and culture. Second, people overwhelmingly link disease and illhealth to poverty. Poor people define poverty in the conventional way lack of income -- but also as instability, worry, shame, sickness, humiliation and powerlessness. All these manifestations have consequences for health. Third, good

health is not only valued in its own right, but also because it is crucial to economic survival. Lack of food is the most frequently mentioned want. Hunger and malnutrition are seen as underlying causes of many diseases. They cause weakness and exhaustion, and make people more susceptible to infections. Many people say they eat only once a day and sometimes have nothing for days on end. The poorest people rely on what they can find growing wild or by catching fish and shellfish. Lack of water for irrigation is identified as a major problem for rural communities, threatening livelihoods and household food security. In developing countries, breaking the vicious circle of poverty and ill health is an essential condition for economic development. The fact that three of the eight Millennium Development Goals are specific to health is evidence of the consensus on this point across the international development community. In response to this global concern, this Reference Document deepens the approach taken by the DAC Guidelines on Poverty Reduction (2001). It adds further insight into the role of health in reducing poverty and the range of investments required to achieve better health outcomes for poor people as an integral component of poverty reduction strategies. Achieving better health for poor people requires going well beyond the health sector to take action in related areas such as education, water and sanitation. It also entails looking beyond national programmes to global policies with implications for health, such as trade and the provision of global public goods. Within the health sector itself, a pro-poor approach is required which includes improving governance, strengthening the delivery and quality of health services, reaching highly vulnerable groups, developing more effective partnerships with the private sector, and designing equitable health financing mechanisms. However, without significantly increased financing, the poorest countries will remain unable to implement a pro-poor health approach.

"poverty" can be said to exist in a given society when one or more persons do not attain a level of material well-being deemed to constitute a reasonable minimum by the standards of that society. Saying that poverty "exists" is only the first step; for many purposes, including policy analysis, one must also say "how much" poverty exists. Socioeconomic status is an important determinant of the likelihood that individuals and populations are exposed to environmental and other risk factors for health. We describe a method for measuring the distribution of health factors as a function of socioeconomic position. An overview of the method and its requirements

are first described, followed by a step-by-step numerical example. Other challenges in attributing health to socioeconomic position at the country level. The link between socioeconomic status and health be examined, or the link between socioeconomic status and health factors.

Conclusion and Suggestion

Physical and mental therapy is one of yoga's most important achievements. What makes it so powerful and effective is the fact that it works on the holistic principles of harmony and unification. Yoga has succeeded as an alternative form of therapy in diseases such as asthma, diabetes, blood pressure, arthritis, digestive disorders and other ailments of a chronic and constitutional nature. Research into the effects of yogic practices is currently underway with promising results. According to medical scientists, yoga therapy is successful because of the balance created in the nervous and endocrine systems which directly influences all the other systems and organs of the body.

For most people, however, yoga is simply a means of maintaining health and well-being in an increasingly stressful society. Asana remove the physical discomfort accumulated during a day at the office sitting in a chair, hunched over a desk. Relaxation techniques help maximise the effectiveness of ever-diminishing time off. In an age of mobile phones, beepers and twenty-four hour shopping, yogic practices make great personal and even business sense. Beyond the needs of individuals, the underlying principles of yoga provide a real tool to combat social malaise. At a time when the world seems to be at a loss, rejecting past values _

without being able to establish new ones, yoga provides a means for people to find their own way of connecting with their true selves. Through this connection with their real selves it is possible for people to manifest harmony in the current age, and for compassion to emerge where hitherto there has been none. .

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YOGA AND ITS CAREER AVENUES

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Abstract

In this present fast growing world of sciences and technology, the human element is treated as ever before. Its goals are indistinct and unsatisfying. The mechanism of modern living, the force restriction of physical activity leading to a sedentary life, increase amounts of leisure time this entire factor has resulted in a tremendous increase of public and professional interest in physical activity and health. Man has made tremendous progress in almost every walk of the life. Modern scientists and researchers have absolutely changed the life-style. People seem to be 'turning on' to the idea that one looks and feel better and stays healthier by being more physically active. Stress and strain are the causes of physical as well as mental distraction. Today yoga being a subject of varied interests, has gained worlds wide popularity. Yoga has the surest remedies for man's physical as well as psychological ailment. It makes the organs of the body active in their functioning of human body.

Introduction

Yoga is presently being defined as a system of personality development, transformation of consciousness and integration within the human system leading to the complete well being. It is quality obvious by the definition of yoga given by Swami Ranganathananda of the Ramakrishna Mission that "The science of Yoga is thus the science of man in death, the science of conscious evolution or the science of human possibilities. It is a unique science in that it encompasses, matter, life and consciousness in one sweep and bridges the gap between science (as it is understood today) and Spirituality."

The word yoga is derived from Sanskrit word 'Yuj' which means union-to join or to yoke, the union beings that of the personal self and the impersonal self. Patanjali defines Yoga as chitta, vritti, nirodh. He says it is restraint of mental modifications, means controlling of thought waves entering the mind. Chitta is the intellect including the ego and the senses. Patanjali believes that knowledge is objective and thoughts are

waves which come from outside and are caught by the mind as an aerial would catch sound waves and turn them into words and music. Control of the thought waves means getting rid of false identification of the thought waves with the ego sense.

Yoga is an ancient, Indian art and science that seeks to promote individual health and well-being through physical and mental exercise and deep relaxation. *Bhakti yoga, Dhyana yoga, Karma yoga, Kriya yoga, Kundalini yoga, Hatha yoga* all form of yoga teach methods of concentration and contemplation to control the mind, subdue the primitive consciousness, and bring the physical body under control of the will. In the *Hatha yoga*, slow stretching of the muscles in exercise is taught, along with breathing in certain rhythmical patterns. The body positions or asana for exercises and meditation can be learned, with some practice, by most. These positions are thought to clear the mind and create energy and a state of relaxation for the individual.

Today when everybody in this world is searching for peace, harmony and happiness to reduce their stress and tension, the yoga is very much authentic and useful.

The practice of yoga is well-demonstrated to reduce the physical effects of stress on the body, and has even been found to lower cortisol levels. People find that they feel more relaxed after practicing Yoga. The asana, or physical postures of yoga, are helpful for reducing muscular tension, which reduce stress. Since we often have a tendency to store stress not only in our nervous system, but distributed throughout the musculature and other tissues of the body, yoga can be a valuable and effective tool for releasing this pent-up or stored stress. Yoga helps you to access an inner strength that allows you to face the sometimes- overwhelming fear, frustrations, and challenges of everyday life.

Yoga also includes meditation and breathing practices as well as a set of ethical precepts and observances (*yamas* and *niyamas*). These other elements also have beneficial stress-reducing qualities, partially by improving our relationships with the various aspects of our inner nature.

The benefits of yoga posture (*asana*), breathing (*pranayama*), and meditation (*dhyana*) include increased body awareness, release of muscular tension and increased coordination between body and mind. It helps in better management of stress and ensures an overall feeling of well being.

Why We Need Yoga?

The world today is more violent, unequal, turbulent and unstable, can yoga make some positive contribution to bring back the balance and reduce the health turmoil? Yoga does not need science and technology the way these are being pursued, and scientists do not need methods and practices of yoga. Humankind needs both. Even today, about \$150 billion is spent on mental illness and depression alone. As *Sri Sri Ravi Shankar* has pointed that while the remission rate through medical treatment is about 14%, a study has shown that it would be 64% through yoga practicing of yoga. Several studies have established a direct relationship between meditation and crime rate change. In a paper published in 1987 in *The Journal of Mind and Behaviour*, the authors have reported about transcendental meditation and changes in social indicators.

The term yoga appeared for first time in Rig-Veda, but as a 'Spiritual Discipline' yoga appeared much later. It was Patanjali who defined yoga as "restraining the mind stuff from taking various form". Yoga is also defined as 'Karmasu Kaushalam', that is attaining the maximum level of proficiency in all our actions. It restrains the flickering of mind stuff. Obviously people with an integral approach having a disciplined body, focused mind and sharp intellect all in harmony would be highly creative, innovative, psychologically balanced, eco-friendly and ethical in their socio- economic conduct. The human persona is a continuum of perpetually and mutually interacting body, intellect, mind and spirit- none superior to the other. The mind- matter dualism vanishes and so does the domination or exploration of 'nature'. A holistic view, demands that mankind must learn to live in peace and harmony with environment. Life and its problems can only be understood in totality but not by dividing them in parts. Yoga is considered good for strengthening and relaxing the body. Yoga demands a complete and total effort, involving and forming the whole human being. No mechanical repetition is involved. "yoga is a timeless, pragmatic science evolved over thousands of years, dealing with the physical, moral and spiritual well-being of man as a whole."

Relevance of Yoga in Current Scenarion

Yoga is a way of life, an integrated system of education for the body, mind and inner spirit. Yoga provides one of the best means of self-improvement and attained one's

full potential. In the advanced stages of yoga super conscious states are attained which results in a feeling of bliss, deep peace and the emergence of psychic power.

Some important benefits of yoga are as follows:

1. Yoga includes stretching your body to the extent that you will become much more flexible than before and have less chances of joint pain in later stages of your life.
2. Meditation is a great aspect of yoga, it helps you to relieve from mental stress, increase your concentration and helps you to achieve peace of mind and calmness.
3. Yoga provides many breathing exercises such as pranayam, anuloma, viloma which helps to improve overall functioning of body organs and blood circulation is also approved.
4. Performing yoga on regular basis helps in making your body to resist many ailments as it keeps the blood pressure in control and healing rate of an injury or a wound is also improved.
5. It helps to make our immune system strong helping our body to fight against many ailments such as headache, fatigue etc.
6. It also provides a natural glow on your skin making it look healthier.
7. One of the most important benefits of yoga is that it helps in preventing obesity.
8. Yoga is the best way to improve your body posture, eye-hand coordination, balance, steadiness and immunity.
9. Yoga is the best practice which will help you to increase your coordination, concentration and memory power if performed on regular basis.
10. Yoga enhances your body postures and improves your muscles tone providing relief you from back pains and other joint problems increasing your strength.

Career Avenues in Yoga

Career play a very important role in individual's life and the choice of a carrier is one of the most critical decisions of. It shapes our future and determines our lifestyle due to multidisciplinary of choices selecting a career is not an easy decision today. Yoga is a comprehensive concept and its scope is very wide. The popularity of yoga has increased enormously in recent year's yoga and associated disciplines such as sports

sciences, physical education, health education, fitness management and sports psychology have seen massive growth over the past decade.

Yoga as an education career option has become popular in the recent past, though the practice of yoga has been prevailing from several centuries, because of its curative powers. There are a number of education courses on yoga which are provided as diploma/degree/certificate and yoga education has become a widely chosen as career option for the young generation of the India.

Yoga degree/diploma/ certificate holders may start the professional career as:

- Yoga teacher/Instructor in schools.
- Lecturer, Reader, Professor and Director in Higher Education.
- Yoga Instructor in Gym, Multinational Companies and Also in Call Centers.
- Yoga Therapist in various Hospitals.
- Yoga Experts/Instructor in different Sports Teams, Clubs and Associations.

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