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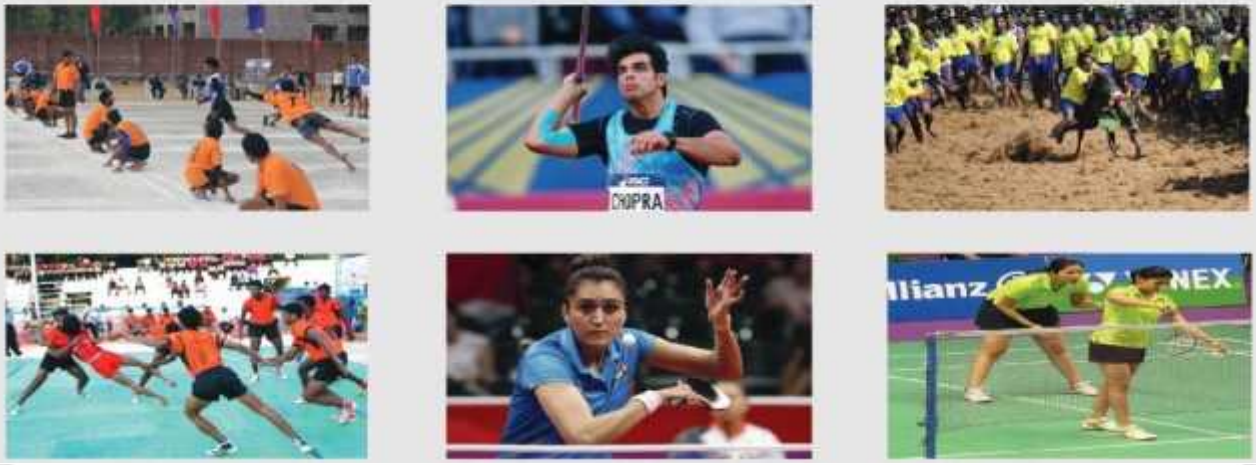

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BNJPEES

DOUBLE – BLIND REFERRED JOURNAL

DEPARTMENT OF PHYSICAL EDUCATION
BHARATHIAR UNIVERSITY
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From the Editors' Desk

Whilst we are striving hard to manage the new normal post Covid pandemic, there is a great realisation on health fitness and wellness. The department of Physical Education, Bharathiar university with societal responsibility publishes this 10th volume of 'The Bharathiar National Journal of Physical Education and Sports Sciences'. Inspite of the pademic break the editorial team had put in tremendous efforts to bringout this volume of research works and articles.

The Bharathiar National Journal of Physical Education and Exercise Science (BNJPEES) is an open access quarterly journal, double blind refreed journal with ISSN – 0976-3678 which publishes original articles, commentary, editorials, review articles and case reports covering recent innovative high quality researches on sports published by the Department of Physical Education, Bharathiar University Coimbatore since June 2010. The purpose of this journal is to enrich the field of physical education and sport with literary base dynamic latest research and articles. The field of sport and physical education with its dynamic nature needs a literary back up to keep the masses informed of the latest changes that are happening across this field. Since the Sports Climate is experiencing a wide range of change and is very much essential that we stretch ourselves to meet the key challenges on sports and games. Since the inception of the new editorial team from 2019, the journal has been upgraded online to increase the vicinity across the globe and provide a wider citation oppurtunity scling up research heights. The journal has been indexed with google scholar, world cat, core and road.

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From the editorial desk we submit to you that BNJPEES, with immense pleasure is working for the development of research in the field of Physical eduaction and sports sciences which is the need of the hour. We encourage the authours to submit evidence based realtime research results which would benefit the society.



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BHARATHIAR NATIONAL JOURNAL OF
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Effect of Game Specific Training on Selected Physical and Physiological Variables among College Men Kabaddi Players

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Abstract

This study was designed to investigate the game specific training on selected physical and physiological variables among college men Kabaddi players. To achieve the purpose of the study 30 men inter collegiate men Kabaddi players were selected from Bharathiar University Department and Sri Ramalinga Sowdambigai College of Arts and Commerce Coimbatore. Their age ranged between 18 and 25 years and they were divided into two equal groups consists of 15 each. Group I underwent the game specific training and Group II acted as control group. The training was given to the experimental group for 3 days per week for the period of 12 weeks. The control group was not given any sort of training except their routine work. The data collected from the subjects was statistically analyzed with 't' ratio to find out significant improvement if any at 0.05 level of confidence. The results speculated that the speed and breath holding time of college men Kabaddi players improved significantly due to the influence of game specific training with the limitations.

Keywords: Game specific training, speed and breath holding time.

INTRODUCTION

Kabaddi is essentially an Indian game, which commands huge popularity in the India as well as its hinterland. In India, kabaddi is popular in different names. in the southern parts of the game is referred to as ched gudu or Hu-Tu-Tu. in eastern India, it is fondly called Ha-du-du (for men) and Kit-Kit (for women). The game is known as kabaddi in northern India. breath control, raid, dodging and movement of hand and feet are the basic skills that one has to acquire, in order to play kabaddi. The player has to acquire power and learn both offensive and defensive skills to excel in the game, which combines the characteristics of rugby and wrestling.

PHYSICAL FITNESS

Physical fitness is a state of health and well-being and, more specifically, the ability to perform aspects of sports, occupations and daily activities. Physical fitness is generally achieved through proper nutrition, moderate

vigorous physical exercise, and sufficient rest. Before the industrial revolution fitness was defined as the capacity to carry out the days activities without undue fatigue. However, with automation and changes in lifestyles physical fitness is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypo kinetic diseases, and to meet emergency situations. Fitness is defined as the quality or state of being fit. Regarding specific function, fitness is attributed to person who possesses significant aerobic or anaerobic ability, i.e. strength or endurance. A well rounded fitness program will improve a person in all aspects of fitness, rather than one, such as only cardio/respiratory endurance or only weight training. A comprehensive fitness program tailored to an individual typically focuses on one or more specific skills, and on age or health-related needs such as bone health. Many sources also cite mental, social and emotional health as an important part of overall fitness. This is often presented in textbooks as a triangle made up of three points, which represent physical, emotional, and mental fitness. Physical fitness can also prevent or treat many chronic health conditions brought on by unhealthy lifestyle or aging. Working out can also help some people sleep better and possibly alleviate some mood disorders in certain individuals. Developing research has demonstrated that many of the benefits of exercise are mediated through the role of skeletal muscle as an endocrine organ. That is, contracting muscles release multiple substances known as myosin's which promote the growth of new tissue, tissue repair, and various anti-inflammatory functions, which in turn reduce the risk of developing various inflammatory diseases**.** **(*Tremblay MS December 2010)***

PHYSIOLOGY

Physiology is the study of the functions of the normal human body. Physiology is one of the bio-medical science, it deals with the functions of the living organism, its systems, organs, individual cell and cell structures, as well as with the mechanism regulating the functions and interaction of the organism with the external environment. The goal of physiology is to gain in right in to the machinery of the human organism. The roles and interaction of its parts and the resultant output of these interactions, that is, the overall functioning of the organism.

TRAINING PROGRAMME

The investigator selected a training that is specific training for kabaddi players which improved certain selected physical fitness variable as Speed and physiological variable as breath holding time. During the training period the experimental group underwent the training of selected game specific training for twelve weeks of period in

addition to their daily routine activities as per the curriculum. Experimental group underwent training program on three days per week for twelve weeks period. All the subjects involved in this study were carefully monitored throughout the training program, none of the reported with tear and muscle soreness.

STATISTICAL ANALYSIS

The analysis of data on the effect of game specific training selected physical and physiological variables was statistically analyzed with 't' ratio test to find out the significant improvement between pre and post test. In all cases the criterion for statistical significance was set level of confidence.

TABLE - I

ANALYSIS OF 'T' RATIO FOR THE PRE AND POST TEST OF CONTROL AND EXPERIMENTAL GROUP ON SPEED

Variable	Groups	Mean		SD		Sd Error	Mean difference	't' ratio
		Pre	Post	Pre	Post			
Speed	Experimental	7.74	7.64	0.27	0.18	0.04	0.10	2.26*
	Control	7.82	7.83	0.20	0.22	0.02	0.01	0.47

FIGURE -I

BAR DIAGRAM SHOWS THE PRE AND POST TEST MEAN VALUES OF CONTROL AND EXPERIMENTAL GROUP ON SPEED

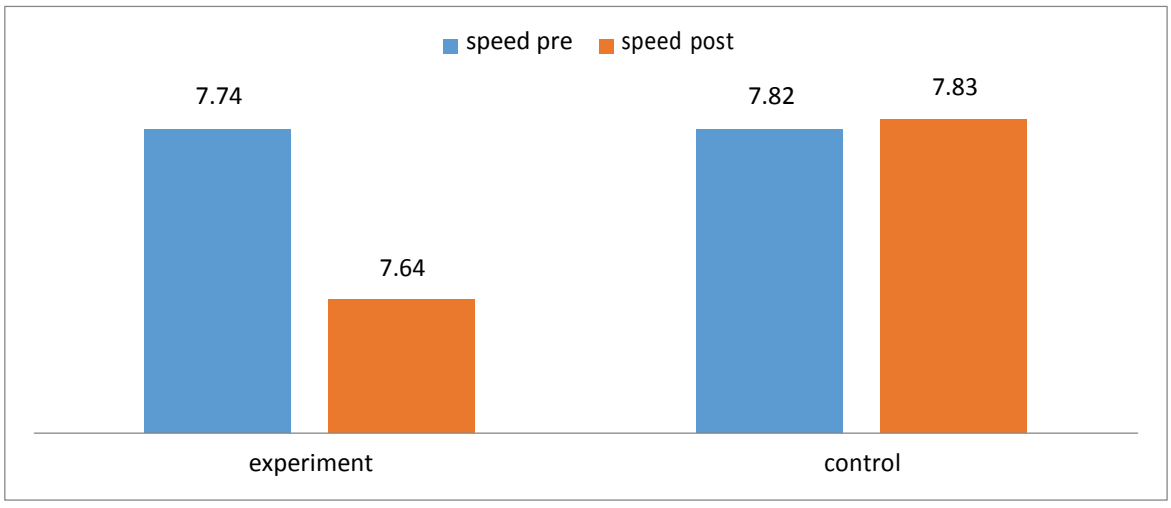

TABLE - II

ANALYSIS OF 'T' RATIO OF THE PRE AND POST TEST FOR CONTROL AND EXPERIMENTAL GROUP ON BREATH HOLDING TIME

Variable	Group	Mean		SD		Sd Error	Mean difference	't' ratio
		Pre	Post	Pre	Post			
Breath holding time	Experimental	26.30	26.45	0.59	0.60	0.06	0.15	2.78*
	Control	26.28	26.32	0.78	0.99	0.22	0.04	0.20

FIGURE-II

BAR DIAGRAM SHOWS THE PRE AND POST TEST MEAN VALUES OF AND CONTROL AND EXPERIMENTAL GROUP ON BREATH HOLDING TIME

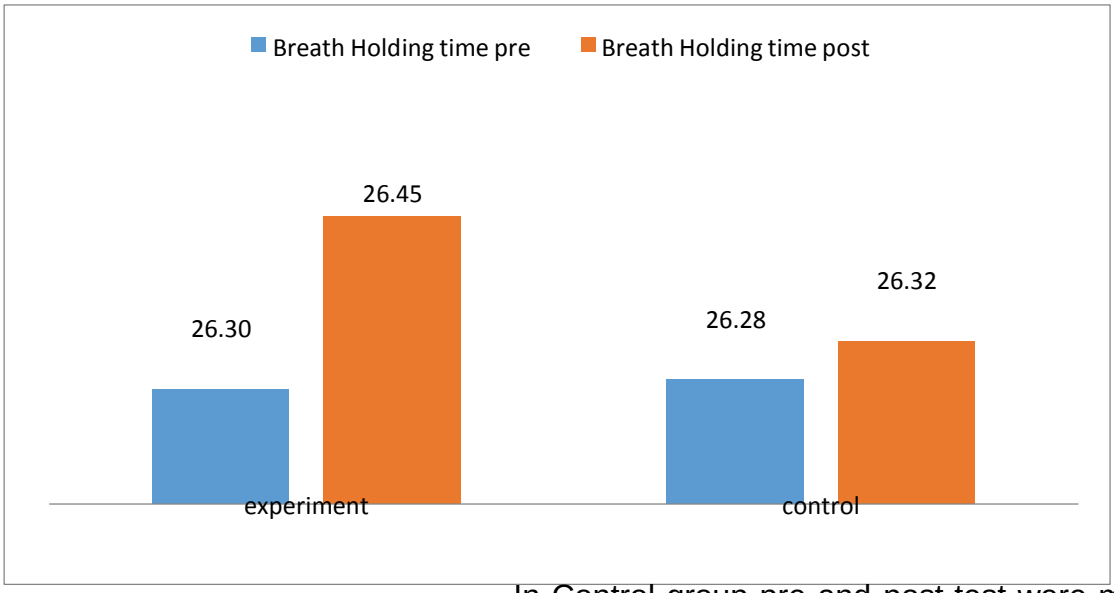

Table I reveals the computation of 't' ratio between mean of pre and post test on Breath holding time of inter college level men kabaddi players. The mean values of pre and post test of experimental group were 7.74 and 7.64 respectively.

In Control group pre and post-test were mean value was 7.82, 7.83 respectively. The experimental group, the obtained 't' ratio 2.26 was higher than the required table value 2.15, it was found to be statistically significant for the degree of freedom 1 and 14 at 0.05 level of confidence. The results clearly indicated that the breath holding time of the

experimental group improved due to the game specific training on Kabaddi players.

Table II reveals the computation of 't' ratio between mean of pre and post test on Breath holding time of inter college level men kabaddi players. The mean values of pre and post test of experimental group were 26.30 and 26.45 respectively. In Control group pre and post-test were mean value was 26.28, 26.32 respectively. The experimental group, the obtained 't' ratio 2.78 was higher than the required table value 2.15, it was found to be statistically significant for the degree of freedom 1 and 14 at 0.05 level of confidence. The results clearly indicated that the breath holding time of the experimental group improved due to the game specific training on Kabaddi players.

DISCUSSIONS ON FINDINGS

The result of the study indicates that the experimental group namely specific training group had significantly improved the selected physical and physiological variables namely speed and breath holding time. When compared to the control group. It is also found that the improvement caused by specific training when compared to the control group.

Sharma et al.,(2011) reported that significant difference were obtained on physical fitness (speed and agility) and physiological (systolic blood pressure, pulse rate, and breathing holding rate) components on the comparisons of means within the control group of table tennis players. **David et al.,(2002)** reports that 7 weeks of high- and low-velocity resistance training on strength and sprint running performance in nine male elite junior sprint runners. **Kloubec (2010)** reports that Physical fitness on flexibility, muscular endurance, posture and balance.

CONCLUSIONS

1. The study was concluded that the experimental group speed showed significantly greater improvement than the control group.
2. The study was concluded that the experimental group breath holding time showed significantly greater improvement than the control group.

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Effect of Gymnastic Exercises on Self Concept of College Students

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Abstract

The purpose of the study was found out the effect of gymnastic exercises on self concept of college students. To achieve the purpose of the study thirty male college students from Dr. Sivanthi Aditanar College of Physical Education, Tiruchendur will be selected randomly as subjects. The selected subjects will be divided into two groups, group I will undergo gymnastic exercises for six weeks and group II act as a control group who will not undergo any specialized training programme other than their daily routine. The age of the subject ranged from 20-25 years. Data were collected from each subject before and after the six weeks of training. The collected data were analyzed statistically by using dependent „t" test and Analysis of co-variance (ANCOVA) was used to determine the differences. It was found that there was a significant improvement on self concept performance due to the effect of gymnastic exercise.

Keywords: gymnastic exercises, college students

INTRODUCTION

Self-concept or self identity refers to the global understanding a sentient being has of him or her. It presupposes but can be distinguished from self-consciousness, which is simply an awareness of one's self. It is also more general than self-esteem, which is the purely evaluative element of the self-concept.

The self-concept is composed of relatively permanent self-assessments, such as personality attributes, knowledge of one's skills and abilities, one's occupation and hobbies, and awareness of one's physical attributes. For example, the statement, "I am lazy" is a self-assessment that contributes to the self-concept. In contrast, the statement "I am tired" would not normally be considered part of someone's self-concept, since being tired is a temporary state. Nevertheless, a person's self-concept may change with time, possibly going through turbulent periods of identity crisis and reassessment.

The self-concept is not restricted to the present. It includes past selves and future selves. Future selves or "possible selves" represent individuals' ideas of what they might become, what they would like to become, and what they are afraid of becoming. They correspond to hopes, fears, standards, goals,

and threats. Possible selves may function as incentives for future behavior and they also provide an evaluative and interpretive context for the current view of self**. (Kamlesh M.L,1997)**

METHODOLOGY

To achieve the purpose of the study thirty male college students from Dr. Sivanthi Aditanar College of Physical Education, Tiruchendur will be selected randomly as subjects. The selected subjects will be divided into two groups, group I will undergo gymnastic exercises for six weeks and group II act as a control group who will not undergo any specialized training programme other than their daily routine. The age of the subject ranged from 20-25 years. Data were collected from each subject before and after the six weeks of training. The collected data were analyzed statistically by using dependent „t" test and Analysis of Co- Variance (ANCOVA) was used to determine the differences. To collect the data utilizing the "Self concept scale" questionnaire developed by Piens-Harsis was used to set the detail s of self-concept from the subjects. The investigator administered questionnaire for 30 subjects. The pre test data were collected two days before the training programme and the posttest data were collected at the end of 6th week, after the training programme. In both the cases the data were collected in the same place and at the same time. The selection of variable and test item will be given table I

TABLE I SELECTION OF TEST

S.No	Variable	Test (Questionnaire)
1	Self Concept	Self Concept Scale – Prepared by Piens-Harris

TRAINING PROGRAMME

The experimental group underwent training for three days in a week. Training is done everyday early morning from 6 to 6.45 am for six weeks under the personal instruction and supervision of the research scholar. The exercises are given below.

Monday

Floor Exercises

1. Forward Roll
2. Backward Roll
3. Hand Stand Forward roll
4. Cartwheel
5. Jump Forward Roll

Wednesday

Horizontal Exercises

1. Swing in Hang(Forward / Backward)

2. Back Upraise
3. Hip Circle Forward

Friday

Parallel Bar Exercises

1. Swing in Support
2. „L" Support
3. Hand Stand (Shoulder Stand)
4. Long Upstart (Glide hip)
5. Back Upraise to Support

TABLE-II THE SUMMARY OF MEAN AND DEPENDENT 't' TEST FOR PRE AND POST TESTS ON SELF CONCEPT OF EXPERIMENTAL AND CONTROL GROUP

	Experimental group	Control group
Pretest mean	178.73	181.53
Post test mean	195.20	173.86
T -test	6.137*	2.013

„t" value 2.145 significant at 0.05 level of confidence

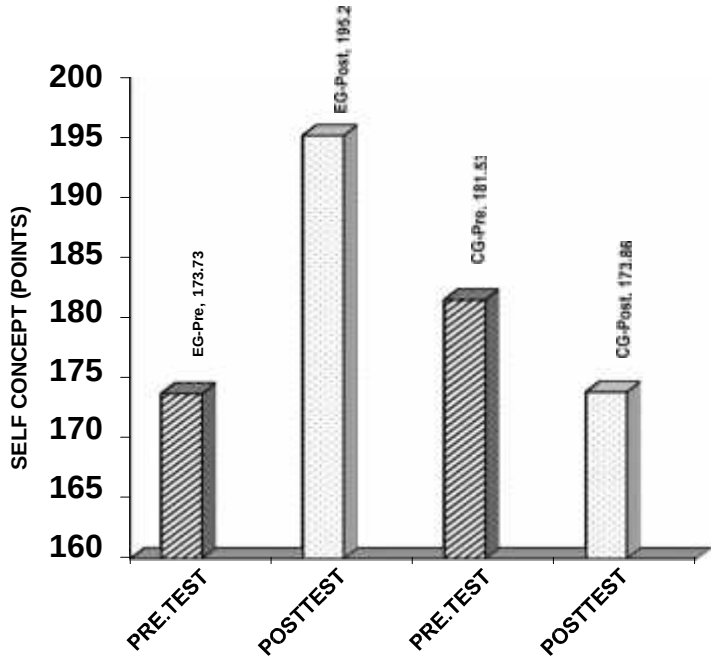

FIGURE I MEAN VALUES OF EXPERIMENTAL GROUP AND CONTROL GROUP FOR THE PRE AND POST TEST ON SELF CONCEPT

EG – EXPERIMENTAL GROUP CG – CONTROL GROUP

TABLE III ANALYSIS OF COVARIANCE OF EXPERIMENTAL GROUP AND CONTROL GROUP OF SELF CONCEPT

ADJUSTED POST TEST MEAN		Source of variance	Sum of square	df	Mean square	'F' ratio
Experimental Group	Control group	Between	1854.894	1	1854.894	15.893*
1.959	1.731	Within	31.51.240	27	116.713	

*Significant at 0.05 level of confidence (with df 1 and 27 is 4.21)

RESULTS AND DICUSSION

To find out the effect of gymnastic exercise and to determine the significant improvement, dependent „t" test was used. To find out the difference between the means, „F" ratio was used as ANCOVA statistical technique. In all the cases to test the significance 0.5 level of confidence was used. The dependent „t" test and the „F" ratio were given below Table I and Table II respectively.

From the table II, the dependent „t" test values between the pre and posttest means of experimental and control group are 6.137 and 2.013 respectively. Since the obtained „t" test value of experimental group is greater than the table value of 2.145 and the obtained „t" test value of control group is lesser than the table value of 2.145 at 0.05 level of confidence. It is concluded that experimental group had significant improvement in the self concept.

The mean values of experimental group and control groups pre and post test on self concept are presented in figure I.

The analysis of covariance on experimental training group and control group are presented in Table III

From table III the adjusted post test mean value of experimental training group, control group are respectively. The obtained „F" ratio is 15.893 is greater than the table value of 4.21 for significance at 0.05 level of confidence. The results of the study indicate that there is significant difference among the adjusted posttest means experimental training

group when compared with control group on the development of self concept.

CONCLUSIONS

Within the limitation of the present study, the following conclusion was drawn.

From the result, it was concluded that, there was a significant improvement on self concept performance due to the effect of gymnastic exercise

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IMPACT OF RESISTANCE TRAINING ON PHYSICAL FITNESS VARIABLES OF SCHOOL LEVEL MEN SOCCER PLAYERS

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Abstract

This study was designed to investigate the impact of resistance training on physical fitness variables of school level men soccer players. To achieve the purpose of the study forty School level men soccer players was randomly selected from Ragavendra School, Coimbatore and their age ranged between 14 and 17 years. They were divided into two equal groups consists of twenty each. No attempt was made to equate the groups. Experimental Group was given resistance training (RT) for the period of 8 weeks and Group II acted as control group (CG), the subjects in control group was not engage in any training programme other than their regular activity. The physical fitness variables, speed were assessed by 50mts dash test and agility was assessed by 4x10mts shuttle run test. The data collected from the subjects was statistically analyzed with't' ratio to find out significant improvement if any at 0.05 level of confidence. The result of the speed and agility improved significantly due to impact of resistance training with the limitations of (diet, climate, life style) status and previous training the result of the present study coincide findings of the investigation done by different experts in the field of sports sciences. Resistance training significantly improved speed and agility of school level soccer players.

Keywords: Resistance training, speed and agility.

INTRODUCTION

Resistance training styles of resistance exercise there is (1) Olympic lifting (where athletes lift weight overhead like you see in the Olympics),(2) power lifting (a competition where athletes the perform the squat, dead lift and bench press),and (3)weight lifting (a sport where athletes lift heavy weights –typically fewer the six reps). When you lift weights at the gym to stronger or bigger or more toned, you are performing resistance exercise. Occasionally you will hear the term "strength training associated with lifting weights technically its incorrect to refer to resistance exercise as strength training instead strength in this articles the term resistance exercise will refer to the general type of weight lifting that you dob in the gym

to get bigger, stronger, more toned, or to increase your muscular endurance **Volek JS (2004).**

Resistance exercise is based on training that incorporates resistance to your regular force of normal muscle contraction it is also based on training that uses hydraulic or elastic resistance (which is actually a well-specified type of strength training that merely uses hydraulic or elastic resistance to produce this resistance)

The good thing with resistance exercise is that you are actually using the very simple concept of just employing your own weight along with gravity to challenge and then train your body for the most per resistance exercise tone your body and make certain that you become leaner in your frame. Here are three types of resistance exercise that you should take a stab at (may 1998) Belinda vella.

Experimental Approach to the Problem

In order to address the hypothesis presented herein, we selected 40 school level men soccer players from Ragavendra School Coimbatore. The subjects were randomly assigned in to two equal groups, namely, resistance training (RT) group (n=20) and control group (n=20). The respective training was given to the experimental group the 3 days per week (alternate days) for the training period of eight weeks. The control group was not given any sort of training except their routine.

DESIGN

The evaluated physical fitness variables were speed was assessed by 50mts dash test and the unit of measurement was in sec and agility were assessed by 4x10mts shuttle run test the unit of measurement was in sec. The variables were measured at baseline and after 8 weeks of resistance training were examined.

TRAINING PROGRAMME

The training programme was lasted for 45 minutes for session in a day, 3 days in a week for a period of 8weeks duration. These 45 minutes included 10 minutes warm up, 25 minutes resistance training and 10 minutes warm down. Every two weeks of training 5% of intensity of load was increased from 65% to 80% of work load. The volume of resistance training is prescribed based on the number of sets and repetitions. The equivalent in resistance training is the length of the time each action is held for and the number action in total 3 day per weeks (Monday, Wednesday and Friday). The selected subjects underwent regular physical exercise on other 3 days (Tuesday, Thursday, and Saturday).

STATISTICAL ANALYSIS

The collected data on above said variables due to the effect of resistance training on physical fitness variables was statistically analyzed with‘t’ test to find out the significant Improvement between pre and post test. In all cases the criterion for statistical significance was set at 0.05 level of confidence. Table I reveals the computation of ‘t’ ratio between pretest and posttest on speed and agility among school level men soccer players. The mean values for pre and post test of experimental group were 7.48, 7.23 14.26 and 13.89 respectively. Since the obtained ‘t’ ratio 2.71* and 3.44* was greater than the required table value 2.093, it was found to be significant for the degrees of freedom 1 and 19 at 0.05 level of confidence .The result clearly indicated the speed and agility of experimental group had been improved by the influence of resistance training

TABLE- I
COMPUTATION OF ‘t’ RATIO ON SPEED AND AGILITY OF SCHOOL LEVEL MEN SOCCER PLAYERS ON EXPERIMENTAL GROUP

Variables	Group	Mean	Standard deviation	Mean difference	Standard error mean	t-ratio
Speed	**Pre test**	7.48	0.47	0.24	0.09	2.71*
	Post test	7.23	0.55			
Agility	**Pre test**	14.26	0.77	0.37	0.10	3.44*
	Post test	13.89	0.75			

TABLE- II
COMPUTATION OF ‘t’ RATIO ON SPEED AND AGILITY OF SCHOOL LEVEL MEN SOCCER PLAYERS ON CONTROL GROUP

Variables	Group	Mean	Standard deviation	Mean difference	Standar error mean	t-ratio
Speed	Pre test	7.58	0.55	0.08	0.16	0.49
	Post test	7.66	0.77			
Agility	Pre test	14.36	0.74	0.15	0.08	1.83
	Post test	14.51	0.78			

FIGURE- I
BAR DIAGRAM SHOWING THE MEAN VALUE OF SPEED AND AGILITY OF SCHOOL LEVEL MEN SOCCER PLAYERS ON EXPERIMENTAL AND CONTROL GROUP

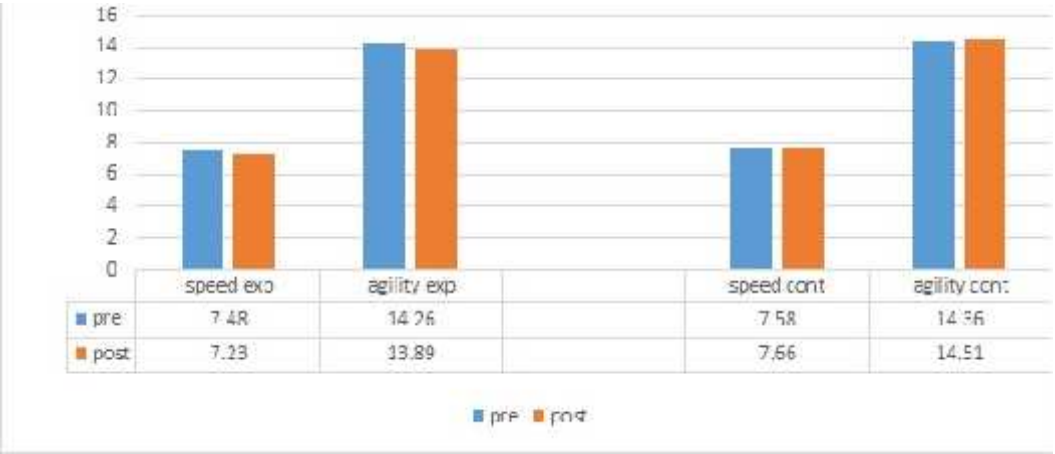

Table II reveals that the computation of 't' ratio between mean of pre and post test on speed and agility of school level men soccer players .The mean values of pre and post test of control group were 7.58, 7.66, 14.36 seconds and 14.51 seconds respectively. Since, the obtained 't' ratio 0.49 and 1.83 was less than the required table value 2.093, it was found to be statistically not significant for the degree of freedom 1 and 19 at 0.05 level of confidence. The result speculated that the subject in the control group did not improve speed and agility.

DISCUSSIONS ON FINDINGS

The results of the study indicated that the selected physical fitness components speed and agility, were improved significantly after undergoing resistance training. The changes in the selected parameters were attributed the proper planning, preparation and execution of the training package given to the players. The findings of the present study had similarity with the findings of the investigations referred in this study.

Jenkins *et al*., (2002) suggest that a lack of velocity-specific performance changes in elite concurrently training sprint runners performing a combination of traditional and semi-specific resistance training exercises. **Skelton** *et al*., **(1995)** sustained that progressive resistance exercise can produce substantial increases in muscle strength and in power standardized for body weight in healthy, very old women. However, isolated increases in strength and LEP/kg may confer only limited functional benefit in healthy,

independent, very old women. **Headley** et al ., **(2008)** Resistance training can be used safely to increase strength and functional capacity in stable hem dialysis patients. **MacDonald et al., (2011)** suggested that CT mirrors benefits seen with traditional RT or PT. Moreover, CT revealed no decrement in strength and anthropometric values and appears to be a viable training modality. **Salonikids** et al.,(2008) reported that, the reaction time, first-step quickness, lateral(side steps),and forward speed over short distances are important parameters for tennis performance, **Moran et al.,(2012)** speculated that the accurate knowledge of results(KR), in the form of service speed, is important in learning to serve faster, **Galy et al.,(2010)** reported that the effects of static and dynamic stretching alone and in combination on subsequent agility, sprinting, and jump performance, **Scarlett et al., (2001)** reported that, if straight sprint training transferred to agility performance tests that involved various change-of-direction complexities and if agility training transferred to straight sprinting speed.

However, the subjects participated in the control group did not improve their speed, and agility.

The result of the present study indicates that the resistance training methods is appropriate protocol to improve speed and agility of school level men soccer players. The discrepancy between the result and the result of previous studies might be attributed to several reasons, such as the training experience level of the subjects, the training programme, in intensity used and the duration of the training programme.

CONCLUSIONS

1. It was concluded that 8 weeks resistance training on physical fitness variables significantly improved the speed and agility of school level men soccer players.
2. Further, it was conducted that eight weeks of resistance training program was found to be most effective training protocol to bring out desirable changes over speed and agility, of school level men soccer players.

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Physical Activity Participation on Attitude towards Sportsmanship Students

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Abstract

The purpose of the study was to find out the attitude towards sportsmanship among varsity students. The study was hypothesized to that the Physical Activity participation is effect on attitude towards Sportsmanship among the varsity students. And also, further hypothesized the Physical Education group was significantly effect on Attitude towards sportsmanship among varsity students. For the purpose of the 40 girls students were selected and they were aged from 18 to 21 The students were divided into four equal groups namely Group I (Control group), Group II (Physical Education), Group III (Fitness Group), Group IV (Education Group). The obtained data were statistically analyzed by using analysis of covariance (ANCOVA). And obtained values were found to be significant at 0.05 level of confidence.

Keywords: Attitude, Sportsmanship and Physical Activity.

Introduction

Attitudes are evaluations people make about objects, ideas, events, or other people. Attitudes can be positive or negative. Explicit attitudes are conscious beliefs that can guide decisions and behaviour. Implicit attitudes are unconscious beliefs that can still influence decisions and behaviour. Attitudes arise only in an adjustment situation and they may be regarded primarily as preparation for the adjustment which is in its initial stages and is to be completed. As that adjustment proceeds the behaviour is transformed from attitudinal or preparatory into true or successful adjustment behaviour (Akila, 2018; Ajzen, 2003).

Sportsman Attitude

Sportsmanship is the character, practice, or skill of a person involved in sports. This includes the participant, the parents, the coaches, and all spectators. Sportsmanlike conduct includes fairness, courtesy, learning to be a good loser, being competitive without rude behavior, or experiencing any ill feelings toward the opponent.

- Sportsmanship contains a variety of positive values.
- Sportsmanship has some things in common with morality.

ATTITUDE COMPONENT MODELS

Multi component model is the most influential model of attitude. Where attitudes are evaluations of an object that have cognitive, affective, and behavioural components.

Cognitive component- The cognitive component of attitudes refer to the beliefs, thoughts, and attributes that would associate with an object. Many times a person's attitude might be based on the negative and positive attributes they associate with an object.

Affective component - The affective component of attitudes refer to feelings or emotions linked to an attitude object. Affective responses influence attitudes in a number of ways. For example, many people are afraid/scared of spiders.

Behavioural component - The behavioural component of attitudes refer to past behaviours or experiences regarding an attitude object. The idea that people might suppose their attitudes from their previous actions.

TABLE I - Analysis of Covariance on Attitude among varsity students

Adjusted Post test Mean				Source	SS	df	MS	F
Control group	Education students	Regular Fitness students	Physical Education students					
168.573	163.094	146.141	136.926	Between	9719.389	3	3239.796	21.56*
				Within	8266.346	55	150.297	

Significant at .05 level of confidence.

Related Reviews

In addition to no one clear and agreed upon definition, the methodology used in how researchers approach studying sportsmanship varies (Vallerand et al., 1996). For example, Shields and Bredemeier (1995) have conducted extensive research in the area of moral and character development in sport. They view sportsmanship, or what they prefer to label sportspersonship, as a central component of character and it is one that "transcends the world of sport" (p. 194). Shields and Bredemeier (1995) believe that sportsmanship "involves an intense striving to succeed, tempered by commitment to a 'play spirit' such that ethical standards will take precedence over strategic gain when the two conflict" (p.194). Shields and Bredemeier (1995) cite an essay by Feezell (1986) that presents the perspective of sportsmanship as "an Aristotelian balance between an 'internal' perspective on sport that takes its goals and procedures quite seriously and an 'external' perspective grounded in the recognition that sport is really quite inconsequential" (p. 188).

This perspective views sport as serious and non-serious and suggests that a participant may be committed and playful in their approach to sport with sportsmanship being the balance between the two (Shields & Bredemeier, 1995). Vallerand and his colleagues (1994, 1996) are another group of researchers who have done extensive studies in the area of sportsmanship, and who have defined sportsmanship in a multidimensional manner. They believe that their multidimensional definition allows for greater understanding of the processes involved in the display of sportsmanship behaviour and allows researchers to investigate sportsmanship separately from aggression.

Methodology

For the purpose of the 40 girls students were selected and they were aged from 18 to 21 The students were divided into four equal groups namely Group I (Control group),

Group II (Physical Education), Group III (Fitness Group), Group IV (Education Group). The Pre and Post test Mean was calculated to Identify the Level of significance and the significant different difference among the groups. For the purpose of the study Harmison, Robert J (2014) Attitudes Development and Validation of the Sport Psychology Questionnaire was used to measure the attitude level of the participants. The obtained data were statistically analyzed by using analysis of covariance (ANCOVA).

TABLE II - SCHEFFE'S POST HOC TEST ON ATTITUDE

Adjusted Post test Means				Mean Differences	Confidence Interval
Control group	Education students	Regular Fitness students	Physical Education students		
168.573	163.094			5.479	12.928
168.573		146.141		22.432*	
168.573			136.926	31.647*	
	163.094	146.141		16.953*	
	163.094		136.926	26.168*	
		146.141	136.926	9.216	

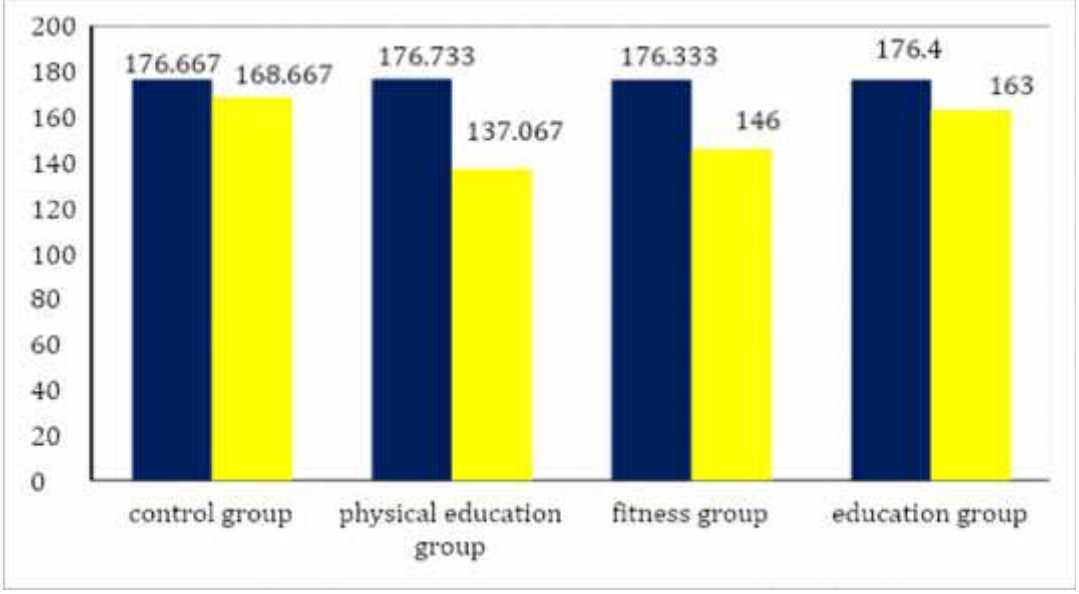

Figure : I - Pre and post test mean difference on Attitude among varsity Students

Findings and Discussion

The obtained value of 21.56 was significant at 0.05 level of confidence. The result shows that the study was significant and also it was further discussed that the Physical Education group have higher mean value than the Fitness and Education group.

- The physical education group secured post test mean of 136.926 due to regular physical activity participation and also took part in the competition. It helps them to develop their real sportsman attitudes in daily practice.
- The Fitness group secured post test means of 146.14 and they were practised regular activity to maintain their fitness level but not to participate in the competitions. But results shows that physical activity participation in routine can also improve the quality of fitness, time management, group adjustment (team activities), Motivation and positive behaviours.
- The Education group secured post test mean of 163.094 by participating the sports activities only in their scheduled time of work. So they can learn the motor

actions and expose themselves in Physical Activity.

Conclusion

Research has shown, however, that sports and sportsmanship can have an influence on students' moral development and task orientation. Sports can teach students about "fairness" and encourage them to set and achieve goals and moral standards. A number of theories have been proposed to explain how people understand sportsmanship, and what motivates athletes to participate in sports. Sportsmanship is not just a 'state of mind' which does not drive any action but is 'character and action'.

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Conflict of interest

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Effect of Functional Activity on Cardiovascular Endurance Balance and Muscular Endurance Among Veterinary College Students

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Abstract

The purpose of the study was to find out the effect of Functional Activity on cardiovascular endurance, balance and muscular endurance among Veterinary College Students. Twenty four (24) male veterinary students those who are studying Bachelor of Veterinary Sciences (B.V.Sc.,) from Veterinary College and Research Institute, Tirunelveli were selected randomly as subjects. The male students were restricted to act as subjects for this study. The age of the subjects ranged from 18 to 21 years. The selected subjects were divided into two groups. Group I underwent Functional Activity Practices and Group II acted as control. The experimental group (Functional Activity Practices) was subjected to the Functional Activity for five days (Monday, Tuesday, Wednesday, Thursday and Friday) for up to six weeks. The Functional Activity practices was selected as Independent Variable and the criterion variables Cardiovascular Endurance, Balance and muscular endurance were selected as dependent variables and the selected dependent variables were assessed by the standardized test items. Cardiovascular Endurance was assessed by 12 Minutes Copper's Run and Walk test and the unit of measurement in distance, Balance was measured by stork Stand Test and the unit of measurement in seconds and muscular endurance was assessed by bent knee sit ups test and the unit of measurement in numbers. The experimental design selected for this study was pre and post test randomized design. The data were collected from each subject before and after the training (functional activity practices) period and statistically analyzed by using paired sample't' test and analysis of covariance (ANCOVA). It was found that there was a significant improvement and significant different exist due to the effect of functional activity practices on cardiovascular endurance, balance and muscular endurance among Veterinary College students

Keywords: Functional Activity, cardiovascular, Veterinary College students

1. Introduction

"All human movement is combination of various functions. Human movement cannot take place without muscular function". **(Cannone, 2004)**.

Functional Training is a "fitness enthusiasm" that has been ongoing for a number of years, although the term functional training can be traced back to at least the 1970s. **(Inaba et.al.1973)**.

Although many may recognise functional training originating with the field of physical therapy (aiding with activities of daily living), there are commentators who suggest some sports and fitness personalities were utilizing the concept of functional training before the term was coined.

Functional Training can be defined somewhat problematic as it means different things to different people, with some groups not even using the term functional training, instead referring to stability training, postural training or some other remote term.

The terms "functional training" and "functional activity" are exceptionally impossible to differentiate, hence they can easily be taken to mean many different things and represent many different approaches to training **(PT Direct, 2016)**.

Functional designed to be practical and useful rather than gorgeous, and also functional performing a particular process of action. Training means the development of knowledge the skills the players need to do exacting activity. Functional movement are supported on real-world situational biomechanics. They regularly involve multi-planer, multi-joint actions which place insist on the body's core musculature and participation. Simply put, functional movement is the capability to move the body with proper muscle and joint function for unforced, pain free-free faction **(www.bootcampmilitaryfitnessinstitute.com)**.

Functional activity is a mission or takes action that allows one to meet the burden of the surroundings and daily life. Functional activity is an activity that is necessary to support the physical, social, and psychological well-being of a person and consent to that person to gathering in society **(www.bootcampmilitaryfitnessinstitute.com)**.

Functional training is a "Neuromotor exercise training, sometimes called functional fitness training is one of four major components that are important in an individual's health and fitness. Nueromotor exercise training is a form of training that "incorporates motor skills such as balance, coordination, gait, agility and proprioceptive training are the beneficial as part of a comprehensive exercise program for older persons, especially to improve balance, agility, muscle strength and reduce the risk of falls **(Garber et.al., 2011)**.

Functional training is more "real world" in terms of the training actually imitating a broader spectrum of the daily movements. Functional training is useful whether an athlete or recreational exerciser wanting to improve general health. Functional training gives the better balance and muscular control during everyday movements. The human body must be able to achieve and maintain balance in a variety of different positions, plans/angles and coordinations to be totally functional. "Functional balance" is dynamic just like real life. **(www. ronjones.org)**.

Methodology

To achieve the purpose, twenty four (24) male college students studying Bachelor of Veterinary Sciences (B.V.Sc.,) from Veterinary College and Research Institute, Tirunelveli were selected randomly as subjects. The subjects those who are involved in the physical activity and sports were randomly selected as subjects. The study restricted to select the male students as a subject of the study. The age of the subjects ranged from 18 to 21 years. They were assigned randomly into two groups (Group I) underwent Functional Physical Activity (FPA) and (Group II) acted as control of twelve each. The experimental group were subjected to the Functional Physical Activity (FPA) training during the evening hours for five days (Monday, Tuesday, Wednesday, Thursday and Friday) and Group II acted as control. The control group was instructed to practice their regular routine work of the evening hours. The Functional Physical Activity (FPA) was selected as Independent Variable and the criterion variables cardiovascular endurance, balance and muscular endurance were selected as dependent variables and the selected dependent variables were assessed by the standardized test items. Cardiovascular endurance was assessed by 12 minutes copper's run and walk test and the unit of measurement in distance, and the balance was measured by stroke stand test and the unit of measurement in seconds and the muscular endurance was assessed by bent knee sit ups and the unit of measurement in numbers. The experimental design selected for this study was pre and post randomized design. The data were collected from each subject before and after the training period and statistically analysed by using paired sample't' test and analysis of co variance (ANCOVA).

Results and Discussion

The data pertaining to the variables in this study were examined by using paired sample't' test to find out the significant improvement and

analysis of covariance (ANCOVA) for each variables separately in order to determine the difference and tested at 0.05 level of significance.

TABLE- I Mean and paired sample 't' test of experimental and control groups on selected variables

Variables	Mean	Functional Activity Group	Control Group
Cardiovascular Endurance	Pre test Mean	1837.5	1791.7
	Post test Mean	1909.2	1781.7
	't' test	**9.73***	**1.00**
Balance	Pre test Mean	68.17	64.83
	Post test Mean	71.25	64.75
	't' test	**37.00***	**1.00**
Muscular Endurance	Pre test Mean	47.33	46.08
	Post test Mean	50.17	46.00
	't' test	**11.77***	**1.00**
Significant at 0.05 level of confidence (11) = 2.201			

TABLE- II Analysis of covariance of experimental and control groups on selected variables

Variables	Adjusted Post Test Means		Source of Variance	SS	df	Mean Squares	'F'- Ratio
	Functional Activity Group	Control Group					
Cardiovascular Endurance	1909.2	1781.7	Between	41774.36	1	41774.36	**47.28***
			Within	18554.62	21	883.55	
Balance	69.61	66.39	Between	54.72	1	54.72	**666.01***
			Within	1.73	21	0.82	
Muscular Endurance	49.63	46.54	Between	51.76	1	51.76	**156.22***
			Within	6.95	21	0.33	
*Significant at .05 level of confidence, df (1, 21) = 4.32							

The analysis of paired sample't' test on a data obtained for cardiovascular endurance, balance and muscular endurance of the pre and post test means of experimental and control groups have been analysed and presented in Table I.

The obtained paired sample 't' ratio value on Cardiovascular Endurance, Balance and Muscular Endurance of experimental group is higher than the table value, it is understood that the functional physical activity has made significant improvement on cardiovascular endurance, balance and muscular endurance.

However, the control group has not made significant improvement as the obtained 't' value is less than the table value, because it was not subjected to any specific training. The analysis of covariance on the data obtained on cardiovascular endurance, balance and muscular endurance due to the effect of Functional Physical Activity group and control groups have been analysed and presented in Table II

Table II showed that the obtained 'F' ratio values are 47.28, 666.01 and 156.22 which are higher than the table value 4.32 with df 1 and 21 required to be significant at 0.05 level. Since the

obtained value of 'F' ratio is higher than the table value, it indicates that there is significant difference has made among the adjusted post means of functional physical activity group and control group on cardiovascular endurance, balance and muscular endurance.

The Functional Physical Activity (FPA) practices may influence the significant difference on cardiovascular endurance, balance and muscular endurance

Conclusions

1. The Functional Physical Activity (FPA) practices had significantly improves the cardiovascular endurance, balance and muscular endurance
2. There was significant difference among the adjusted post – test means of Functional Physical Activity (FPA) practices and Control group on cardiovascular endurance, balance and muscular endurance.

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Conflict of interest

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Skill Performance Parameter Response to the SAQ With Specific Training on Cricket Players

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Abstract

This study investigated skill performance parameter response to the SAQ with specific training on cricket players. To achieve the purpose of the study 30 male cricket players were selected from ariyalor district and their aged ranged between 18 to 25 years. The subjects were randomly assigned to two equal groups (n=15). Group- I underwent SAQ with specific training group (SWSTG) and Group - II was acted as control group (CG). The specific training was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of twelve weeks. The control group was not given any sort of training except their routine work. The skill performance parameters of alternate hand ball catching (alternate hand wall toss test) were assessed before and after training period of 12 weeks the data collected from the subjects was statistically analysed with 't' test to find out significant improvement if any at 0.05 level of confidence. The result of the alternate hand ball catching speculated significant improvement due to influence of SAQ with specific training with the limitations of (diet, climate, life style) status and previous training. The result of the present study coincide findings of the investigation done by different experts in the field of sports sciences. Influence of SAQ with specific training significantly improved alternate hand ball catching of male cricket players.

Keywords: SAQ Training, Specific Training, alternate hand ball catch.

1. Introduction

Cricket is most popular game in India. Like every other sport, cricket has rules and regulations that one must follow to play the gentleman's game. The popularity of the sport has increased over the years and many countries like China and the USA are preparing to venture into international competition. Television ratings and stadium attendance have been increasing and advertisers are willing to heavily invest in cricket. Many people play just for fun, while many others dream of becoming professionals. Whatever your reason is, knowing all the rules and regulations will help make you a better player. This article will give you all the details about the various rules of cricket**.**

The SAQ training method more frequently uses the programmed than random type conditioning after the SAQ continuum. One SAQ session is composed of 7 components, where the main part of the session, explosion and expression of potential, are combinations of programmed and random conditioning. Integral planning and programming is required to progress from fundamental movement patterns to highly positional specific movements A logical sequence in the learning process must not be neglected because it develops neural structures that are a pre requisite for elite-level upgrade. On sequent, elite players manipulate with their bodies without the loss of speed, balance, strength, and control. Also, with correct movement patterns (technique) and greater muscle power, they accelerate faster.

The SAQ training method consolidates speed, agility, and quickness through the range of soccer specialized exercises. All exercises are performed with optimal biomechanical movement structures, and consequently, energy and time savings are made. Power performance aside from major abilities has the need for optimal joint

mobility, dynamic balance, appropriate loco motor system, and energy production among others.
The primary objectives sport training is positive adaptation and enhance sporting performance. Specific training for cricket players to concentrate the skills and drills. The fundamental skills are the penalty in any game. If you want to high level performance in sports and games you must develop your basic skills. Therefore, every player must know about the importance of perfecting the basic skills, from this we can understand that only a players.

Methodology

Experimental Approach to the Problem

In order to address the hypothesis presented herein, we selected 30 male cricket players were selected from ariyalor district and their aged ranged between 18 to 25 years. The subjects were randomly assigned to two equal groups (n=15). Group- I underwent SAQ with specific training group (SWSTG) and Group - II was acted as control group (CG). The specific training was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of twelve weeks. The control group was not given any sort of training except their routine work.

Design

Pre and post random group design was employed. The evaluated alternate hand ball catch was assessed by alternate hand wall toss test the unit of measurement was in numbers. The parameters were measured at baseline and after 12 weeks of specific training after small side were examined**.**

Training programme

The training programme was lasted for 60 minutes for session in a day, 3 days in a week for a period of 12 weeks duration. These 45 minutes included 10 minutes warm up, 20 minutes SAQ training 20 minutes specific and 10 minutes warm down. Every three weeks of training 5% of intensity of load was increased from 65% to 80% of work load. The equivalent in specific training is the length of the time each action in total 3 day per weeks (Monday, Wednesday and Friday).

Statistical Analysis

The collected data before and after training period of 12 weeks on the selected variables due to the effect of specific training was statistically analyzed with‘t’ test to find out the significant improvement between pre and post test. In all cases the criterion for statistical significance was set at 0.05 level of confidence. ($P < 0.05$)

Table I reveals the computation of mean, standard deviation and ‘t’ ratio on selected skill performance parameters namely alternate hand ball catch of experimental group. The obtained ‘t’ ratio on alternate hand ball catch were 21.38. The required table value was 2.14 for the degrees of freedom 1and 14 at the 0.05 level of significance. Since the obtained ‘t’ values were greater than the table value it was found to be statistically significant.

Further the table the computation of mean, standard deviation and ‘t’ ratio on selected skill performance parameters namely alternate hand ball catch of control group. The obtained ‘t’ ratio on alternate hand ball catch were 1.87. The required table value was 2.14 for the degrees of freedom 1and 14 at the 0.05 level of significance. Since the obtained ‘t’ values were lesser than the table value it was found to be statistically not significant.

Discussion and Findings

The present study experimented the impact of twelve weeks SAQ with specific training on the selected skill performance variables of male cricket players. The results of this study indicated that SAQ with specific training is more efficient to bring out desirable changes over the alternate hand ball catch of male cricket players.

In the present study, specific training improved alternate hand ball catch by over 16.15% by findings significant difference when comparison between baseline and post line.

However, there were no statistically significant changes in alternate hand ball catch of control group.

TABLE – I Computation of 't' ratio on selected skill performance parameters of cricket players on experimental group and control group (Scores in numbers)						
Group	Variables	Mean	N	Std. Deviation	Std. Error Mean	't' ratio
Experimental Group	Pre test	23.53	**15**	**0.74**	**0.16**	**21.38***
	Post test	27.06	**15**	**0.70**		
Control Group	Pre test	**23.66**	**15**	**0.72**	**0.16**	**1.87**
	Post test	**23.46**	**15**	**0.83**		
*significant level 0.05 level degree of freedom (2.14,1 and 14)						

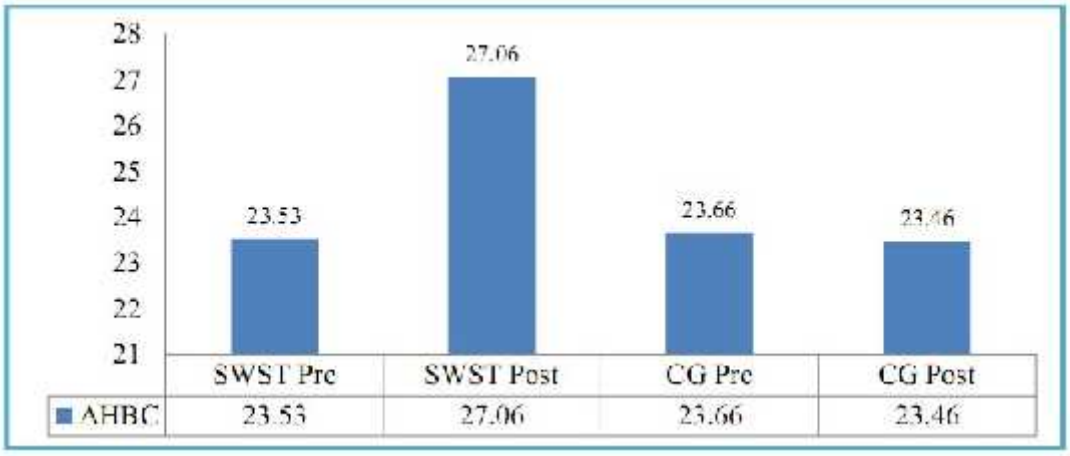

Figure – I Bar diagram showing the mean value on selected skill performance parameters of cricket players on experimental group and control group (Scores in numbers)

The finding of the present study had similarity with the findings of the investigators referred in this study. Skill-based conditioning is increasingly being used as a means of improving the performance of athletes from skill-based sports. Mahesh., (2017) suggested that SAQ form of training might be a beneficial inclusion in the physical conditioning programs of trained players performing invasion games. Prachita et al., (2020) evaluated Speed Agility and Quickness training plays a major role in developing many of the basic skills required for the sport such as speed, agility, strength, reaction time and quickness. It can be adopted as a part of strength and conditioning programs for the athletes at all the levels. Starting it at the root level helps develop skills needed for better performance and also plays an important role in preventing injuries and thus increasing the duration of the sporting career. Kirti (2016) S.A.Q. drills improve Under Arm Throwing ability of cricket players.

Conclusion

Based on the findings and within the limitation of the study it is noticed that practice of SAQ with specific skill training helped to improve selected skill performance of male cricket players. It was conducted that the significant improvements in the alternate hand ball catch of male cricket players due to the influence of SAQ with specific training. Further, it also conduced that the eight weeks of SAQ with specific skill training significant improvement in the selected skill performance of male cricket players.

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