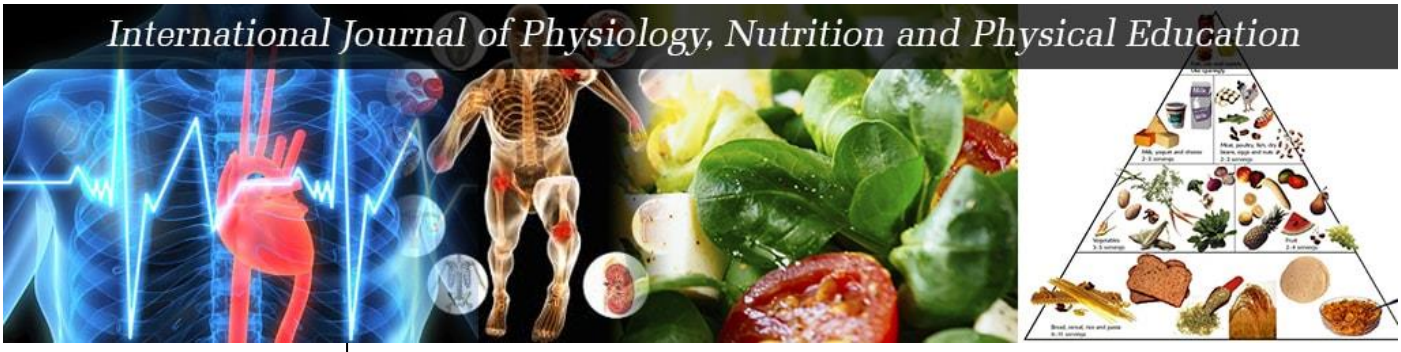

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A study on players' physical strength improvement through structured physical training

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Abstract
This study is an attempt to understand the role played by specific fitness training on players performance. Literature on physical training have not discussed the role played by circuit training cum strength training and its impact on performance in terms of 100 meter race and long jump. Present study is an experimental approach to understand cause and effect relationship. The main abject of this study is to know the importance of physical fitness for players by checking difference in force of leg muscles in standing long jump among control group and experiment group. The subsequent objective of this paper is to understand the difference in speed in 100 meter race among control group and experiment group.

Keywords: Players, physical strength, physical training

1. Introduction
Human body is indeed wonderful machine. It has been created to be active in every work. When other machines got damaged it requires a technician to re-start it. However, human body operates by its own way and gets recovered and administers itself as well. Other machines can't grow by its own way. While human body can grow up by its own.

History says that before many years, there were very less amount of kinetic energy used for any task. Earlier 95 percentage of human energy was utilized for day to day work which indicates the strength of human body in that era. In today's world of 21st century, human need to maintain their physical and mental health. Today in this modern world, we do have various facilities like lift, water pump, mobile, technology, remote, and motor. Due to which, 70 percent class of human are running their business without having hard work. So, ultimately human caliber got affected and people became weak, lazy and charmless. There are lot more mental tension due to heavy demand in daily routine.

Some people have started adopting drugs to get relief from stress. To overcome from this, some people have started regular exercise which can assist them to develop their mental and physical health. Due to an exercise, body gets shaped and results into improvement of respiratory system, breathing system and blood circulation system.

We have heard a lot about physical caliber. Many politicians and teachers consider physical caliber as a major constraint for national development. Physical efficiency means that it could create a convenient situation through force, speed, skill and bear. Scientifically, there is no equilibrium in physical caliber of an individual that means the physical efficiency could be increase in an individual. For that, systematic and scientific approach and training with scientific instruments like universal truth, systematic method would be major focus area then force, speed, bearing factors can be increase.

Physical fitness is better than muscle power. Physical fitness is of two types. First type is health related activeness and another type of fitness is helpful play well in games. There is no more difference in both of the physical activeness. While playing games, some factors of physical fitness need to be developed well. The work efficiency of human to do any work is known as physical efficiency. The standard of physical efficiency depends upon nature and difficulty of task.

In old days, our ancestor's physical efficiency was very satisfying. In modern era, people are earning money which doesn't include extra physical efforts. They are used to do their work in a smart manner with no hard work involved in it. At a same time, everyone is paying at most

attention to physical and mental effort for their health care. At a same time, the endurance capacity and speed are most important factor in sports related physical efficiency This efficiency would be helpful to an individual in competitive games with the proper balance.

Present study is an attempt to understand the role played by specific fitness training on players performance. Literature on physical training have not discussed the role played by circuit training cum strength training and its impact on performance in terms of 100 meter race and long jump. Present study is an experimental approach to understand cause and effect relationship. The main abject of this study is to know the importance of physical fitness for players by checking difference in force of leg muscles in standing long jump among control group and experiment group. The subsequent objective of this paper is to understand the difference in speed in 100 meter race among control group and experiment group.

2. Literature Review

2.1 Defining Fitness

Fitness is not only about being physically fit also it is about individual's mental fitness. These days mental fitness is equally important because mental ill individual person cannot perform day to day work in a better manner. Research suggests that physical fitness and mental fitness is only possible if regular exercise get involved in routine life. One can get relaxation by exercising properly and through proper diet.

2.2 Ways to be physically fit

To be physically fit, individual need to change his or her lifestyle thoroughly. It is very important that individual makes exercise as an inevitable part of their life. First step to be physically fit, avoidance of fast food, cold drinks and alcoholic drinks from one's life. To detoxify the body, it is equally important that one should take fresh air and should involve as more health activities in the lifestyle. One can go for swimming, cycling, Yoga, Aerobics and for many other indoor-outdoor sports to be physically fit.

2.3 Defining Explosive strength and Defining Speed

Explosive strength is defined as "the ability of the muscles to increase force rapidly from a low force or resting state" (Tillin *et al*. 2012) [6]. It is the combination of speed and force. Hence, force is useful in getting control against barrier rapidly. Speed is the primary factor which would be necessary to make rapid action within a short span of time.

2.4 Determinants of Maximizing Physical Fitness

According to Ugarkovic (2002) [7], interval training is really beneficial to develop endurance power of muscles, heart and lungs. The book also suggested that physical fitness can increases the power of nervous system and respiratory system. By adopting this method the athlete can decreases the running time for short races as well as long races. There are four elements of interval training, (1) Running Distance (2) Running Speed (3) Rest Time (4) Repetitions. By using this methods, player can easily handle any type of programme with ease of mind.

Johnstone and Ford (2010) [4] had said in his book that "if a player gets adequate resting time between two races then he/she will be ready for next race enthusiastically. This resting time is very important to increase the stamina and tolerance power of the player. Solanki selected player who takes adequate resting time and practice running 8-9 times at 80-90% of his/her total power. The study found significant relationship between resting time and overall performance.

Rani (2009) [5] taught how to use the principles of doing athletes events. Teaching athletes is an art. The trainer should have a deep knowledge of the subject he/she is teaching. The trainer also needs different equipment to train the players. The advantages of these techniques are

- Personal development takes place through this techniques
- All the functions of the body works properly through these techniques.
- By using these techniques the body refreshes itself.

Amutha (2010) [1] suggested daily activities of human being are known as physical exercise and stamina is depending on human being's thinking. That's why we cannot find out the physical level of each and every human being. We should motivate players by keeping in mind the powers society and their works.

Bunchanan (2010) [2] developed work on when we will have a healthy body, mind and situation then only we can gain speed, power, efficiency and use them in different programmes. Examples like social power, intellectual power and nervous system.

Elliott Bruce *et al*. (2001) [3] suggested that good situation means to prepare any player to play in any situation. These methods improves body powers, speed, endurance, efficiency improves. If a player wants to get a good grip on his skills then he can use these methods. These techniques may be used like circuit training, interval training, pressure training, weight training, grooving the stock isometric training, is kinetic training are useful.

Has told in his 6 books that if a player wants to improve his stamina and physical power then physical knowledge is must. These all exercises are done to maintain physical power. Gregory surveyed on college students, he divided the students into two groups. He experimented on 4^{th}, 5^{th}, 6^{th}, group by a race. $1/4^{th}$ of the track is equal to 2 miles. Hence this race has been continued 5 times in a week for 6 months. To control the continuous race group and interval race group and to supervise the speed of the race. heartbeat should be 162-174 per minute and then they observed that both the race techniques is same and useful or this technique is useful just like as aerobic exercise deal and sector – 8 tells us that this race improves players respiratory system and just because of hormones of the human body speed up their work.

Tried and emphasized the effect of training in physical work and other concerned activities on the sports person. This seemed to be a positive aspect if a sports person is trained before. Stuart also started or commenced a 8 week schedule which consists of 15 Minutes of exercise every day and in order to measure the internal strength of a sports person he arranged a trade mill and also during the trade mill session. He fixed a certain amount of oxygen to be taken or inhaled during the physical work out but it was later observed that there was not any impact or influence of the inhalation of certain fixed amount of oxygen. It was informed that there was not any specific improvement in their stamina and during the training session. There was not any reduction in the heart beat rate of the sports persons.

3. Research Methods

In this study, all samples are divided into two groups. Among which one group will be prepared by giving them training and another group will not be trained. Group which will be selected will be given the training till to the eight weeks.

There are sixty samples are to be taken from selected group.
For any research, it is really difficult to include entire population in the study, so samples are used to generalize the results and also to predict the outcome based on it. There are two types of sampling methods 1. Probability sampling and 2. Non Probability sampling. This study has collected samples by using probability sampling method. The 60 students are selected from constituent institutes from Ganpat University on the basis of random sampling method.

3.1 Pretest-Posttest Control Group Design

In present study, *Pretest-Posttest Control Group Design* has been used. In the pretest-posttest control group design, test units are randomly assigned to either the experimental or the control group, and pretreatment measure is taken on each group. Only the experimental group is exposed to the treatment, but posttest measures are taken on both groups. This design is symbolized as

EG:	R	O_1	X	O_2
CG:	R	O_3		O_4

The treatment effect (TE) is measured as $(O_2 - O_1) – (O_4 - O_3)$
This design controls for most extraneous variables. Selection bias is eliminated by randomization.

3.2 Tool to measure effectiveness

100m Speed Test

In physical fitness, 100 meter speed test is used to check speed endurance and maximum running speed based on the distance run. Stopwatch, measure tape and marked track are the equipment which can be used in 100 meter speed test. In such kind of test, running of a single maximum sprint is considered at a set distance with time recorded. Players are asked to do a standardized warm up, and then the test is conducted over a 100m. Further, it is equally important that the beginning position must be standardized. In addition to that, players are instructed to keep their foot behind starting line. The time taken in the race is recorded in the terms of seconds and its results will be considered as their score in terms of time taken for finishing race.

Standing Long Jump Test (Broad Jump)

Standing long jump is a test to measure the explosive power of the legs. In such kind of test, it is preferable to have non-slips floor for takeoff and also the landing area should be soft. Measure tap can be used to check the distance of jump. In this test, the take-off line must be marked clearly. It is essential that players are asked to be in a standing position by keeping two legs parallel and are asked to jump as long as possible. Results of the test are based on longest distance covered in best of three attempts. After taking the jump from the start line to jumped line the distance will be measured, and the highest reading will be considered in centimeter.

H1: There is a change in the speed in 100 meter race among control group and experiment group in case of pre-training.

H2: There is a change in the speed in 100 meter race among control group and experiment group in case of post-training.

H3: There is a change in the speed in 100 meter race among experiment group in case of pre-training and post-training.

H4: There is a change in the force of leg muscles in standing long jump among control group and experiment group in case of pre-training.

H5: There is a change in the force of leg muscles in standing long jump among control group and experiment group in case of post-training.

H6: There is a change in the force of leg muscles in standing long jump among experiment group in case of pre-training and post-training.

4. Data Analysis

In present study, independent sample t-test and paired sample t-test have been used to compare mean of different groups and same group in two different time period respectively. T-test helps to assesses that whether the means of two conditions or groups are statistically different from one other or not. The t-test is considered as more powerful tests then other forms of non- parametric test. In experimental research design, T-tests give more results of comparing means of two groups.
As mentioned in research methodology chapter, the study employs the pretest-posttest control group experiment research design to test the hypothesis. The subsequent part talks about hypothesis testing one by one. Each hypothesis are mentioned in both types, null hypothesis and alternate hypothesis

Table 1: Group Statistics for 100 meter race

	Pre Group	N	Mean	Std. Deviation	Std. Error Mean
Pre CGEG	Control Group	60	14.96	.511	.066
	Exprimental Group	60	14.88	.444	.057

From the table 1, it can be revealed that mean score of the participants in non-fitness condition is around 14.96 and mean score of participants with pre fitness training condition is around 14.88. It reveals the no change in finishing 100 meter race. In addition, it can be seen that the standard deviation for pretest control group (SD=0.511) is quite similar to standard deviation of pretest experiment group (SD=0.444).

Table 2: Independent Samples Test for 100 meter Race for Pre Experiment Group and Pre Control Group

Levene's Test for Equality of Variances				t-test for Equality of Means						
		F	Sig.	t	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Pre CGEG	Equal variances assumed	1.134	0.289	0.940	118	0.349	0.082	0.087	-.091	0.255
	Equal variances not assumed			0.940	115.759	0.349	0.082	0.087	-0.091	0.255

As a part of full filling assumption while performing independent sample t-test, Levene's Test of Equality of Variances was assessed. From the table 2, it can be postulated that the assumption is not violated or in other words it can be said that the assumption of homogeneity has been met. Significant result (p=0.289 indicates *p*>0.05) variability of scores for both of the groups is similar. Significance value for Levene's test is greater than >0.05 so it suggest to use the first line in the table 2 with Equal variance assumed. However if significance value for Levene's test is lesser or equal to 0.05 (Sig. value < or =0.05), it is suggested to use the second line in the table which says that Equal variance not assumed.

In same vein, t-score/t-test statistics from table 2 indicated that the larger the value of t, it suggest the lesser the possibility/probability that the results have been occurred by chance (t-score =0.940). To comment of difference between two groups (CG-EG), the significance level (two tailed p-value) tells us the likelihood that our results have occurred by chance. The greater the value of *p*>0.05 indicate that it support the null hypothesis by supporting the fact the there is a no difference in 100 meter race in pre control and pre experimental group there is support for our hypothesis, here t (df-118) = 7.78, *p*=0.349>0.005).

Table 3: Group Statistics (100 meter race for control group and experiment group in case of post-training)

Group Statistics					
	Post Group	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Post CGEG	Control Group	60	15.25	0.716	0.092
	Exprimental Group	60	12.90	0.566	0.073

From the table 3, it can be revealed that mean score of the participants in non-fitness training (Post training CG) condition is around 15.25 and mean score of participants with post fitness training condition is around 12.67 (Post fitness training- EG). It reveals the more change in finishing 100 meter race among experiment group then in control group. The average time taken to finish race is quite lesser in experiment group (Mean time-12.90 seconds to finish 100 meter race). In addition, it can be seen that the standard deviation for posttest control group (SD=0.716) is quite more to standard deviation of posttest experiment group (SD=0. 566).

Table 4: Independent Samples t-test for 100 meter Race for Post Experiment Group and Pre Control Group

Levene's Test for Equality of Variances				**t-test for Equality of Means**						
		F	**Sig.**	**t**	**DF**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**	**95% Confidence Interval of the Difference**	
									Lower	**Upper**
Post CGEG	Equal variances assumed	0.083	0.774	19.932	118	0.000	2.348	0.118	2.114	2.581
	Equal variances not assumed			19.932	112.000	0.000	2.348	0.118	2.114	2.581

As a part of full filling assumption while performing independent sample t-test, Levene's Test of Equality of Variances was assessed. From the table 4, it can be postulated that the assumption is not violated or in other words it can be said that the assumption of homogeneity has been met. Non-significant result (p= 0.774 indicates *p*>0.05) variability of scores for both of the groups is similar. Significance value for Levene's test is greater than > 0.05 so it suggest to use the first line in the table 4 with Equal variance assumed. However if significance value for Levene's test is lesser or equal to 0.05 (Sig. value ≤ 0.05), it is suggested to use the second line in the table which says that Equal variance not assumed.

In same vein, t-score/t-test statistics from table 4 indicated that the larger the value of "t", it suggest the lesser the possibility/probability that the results have been occurred by chance (t-score =19.93). To comment of difference between two groups (CG-EG) in post, the significance level (two tailed p-value) tells us the likelihood that our results have not occurred by chance. The lesser value of p <0.05 indicate that it fail to accept/support the null hypothesis by supporting the fact the there is a difference in 100 meter race in post control and post experimental group. There is a support for our hypothesis, heret (118) =19.93, *p*=0.000<0.005).

To test relationship between before the intervention (Pre fitness training-pretest experiment group) and after the intervention in a within participants design (Post fitness training-posttest experiment group), paired-samples or also widely known as repeated measures t-test was used in the present study. The paired sample t-test is suitable when participants gives data for each and every level (Pre-post) or condition of the independent variable in a within-participants design. The results of the paired sample t-test is presented in Table 5, Table 6 and Table 7.

Table 5: Paired Samples Statistics for 100 meter race among experiment group in case of pre-training and post-training

		Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pair 1	Pre_EG	14.88	60	0.444	0.057
	Post_EG	12.90	60	0.566	0.073

From the table 5, it can be revealed that mean score of the participants in Pretest experiment group 14.88 and mean score of participants with post fitness training condition or in other words posttest experiment group is around 12.90. It reveals the more change in finishing 100 meter race among experiment group then in control group. The average time taken to finish race is quite lesser in experiment group-posttest (Mean time-12.90 seconds to finish 100 meter race). In addition, it can be seen that the standard deviation for pre-test experiment group (SD=0.444) is quite less to standard deviation of posttest experiment group (SD=0. 566).

Table 6: Paired Samples Correlations for 100 meter race among experiment group in case of pre-training and post-training

		N	**Correlation**	**Sig.**
Pair 1	Pre_EG & Post_EG	60	.195	.136

From the table 6, it can be revealed that there is no stronger co-relation between pretest experiment group and posttest experiment group (Correlation value is 0.195 and Significant value *P*>0.136).

Table 7: Paired Samples Test for 100 meter race among experiment group in case of pre-training and post-training

		Paired Differences					t	DF	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre EG-Post EG	1.978	.648	.084	1.810	2.145	23.655	59	0.000

In same vein, t-score/t-test statistics from table 7 indicated that the larger the value of "t", it suggest the lesser the possibility/probability that the results have been occurred by chance (t-score =23.65). To comment of difference among 100 meter race finishing timing among pretest experiment group and post-test experiment group, significant value of paired sample t-test in Table 7 reveled that there is a lesser value of p=0.000. The lesser value of $p<0.05$ indicate that it fail to accept/support the null hypothesis by supporting the fact the there is a difference in 100 meter race in pre-test experiment and post-test experimental group. There is a support for our hypothesis, here t (df-59) =23.65, p=0.000<0.005).

Table 8: Group Statistics standing long jump among control group and experiment group in case of pre-training.

	Pre Group	N	Mean	Std. Deviation	Std. Error Mean
Pre CGEG	Control Group	60	6.13	.499	.064
	Exprimantal Group	60	6.22	.540	.070

From the table 8, it can be revealed that mean score of the participants in non-fitness condition is around 6.13 and mean score of participants with pre fitness training condition is around 6.22 It reveals the no change in performing standing long jump. In addition, it can be seen that the standard deviation for pretest control group (SD=0.499) is quite similar to standard deviation of pretest experiment group (SD=0.540).

Table 9: Independent Samples Test long jump among control group and experiment group in case of pre-training.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Pre CGEG	Equal variances assumed	.009	.925	-.996	118	.321	-.094	.095	-.282	.093
	Equal variances not assumed			-.996	117.265	.321	-.094	.095	-.282	.093

As a part of full filling assumption while performing independent sample t-test, Levene's Test of Equality of Variances was assessed. From the table 9, it can be postulated that the assumption is not violated or in other words it can be said that the assumption of homogeneity has been met. Significant result (p=0.925 indicates $p>0.05$) variability of scores for both of the groups is similar. Significance value for Levene's test is greater than >0.05 so it suggest to use the first line in the table 9 with Equal variance assumed. However if significance value for Levene's test is lesser or equal to 0.05 (Sig. value < or =0.05), it is suggested to use the second line in the table which says that Equal variance not assumed.

In same vein, t-score/t-test statistics from table 9 indicated that the larger the value of t, it suggest the lesser the possibility/probability that the results have been occurred by chance (t-score =0.996). To comment of difference between two groups (CG-EG), the significance level (two tailed p-value) tells us the likelihood that our results have occurred by chance. The greater the value of $p>0.05$ indicate that it support the null hypothesis by supporting the fact the there is a no difference in the standing long jump in the pretest control and pretest experimental group. So there is support for our hypothesis, here t (df-118) =0.996, p=0.321>0.005).

Table 10: Group Statistics standing long jump among control group and experiment group in case of post-training.

	Post Group	N	Mean	Std. Deviation	Std. Error Mean
Post CGEG	Control Group	60	5.78	.529	.068
	Exprimental Group	60	8.20	.603	.078

From the table 10, it can be revealed that mean score of the participants in non-fitness training (Post training CG) condition is around 5.78 and mean score of participants with post fitness training condition is around 8.20 (Post fitness training-EG). It reveals the more change in standing long jump among experiment group then in control group. The average jump distance in experiment group is 8.20 feet which quite more than performance in the control group is 5.78 feet. In addition, it can be seen that the standard deviation for posttest control group (SD=0.529) is quite more to standard deviation of posttest experiment group (SD=0.603).

Table 11: Independent Samples Test standing long jump among control group and experiment group in case of post-training

Levene's Test for Equality of Variances				t-test for Equality of Means						
		F	Sig.	t	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post (EG-CG)	Equal variances assumed	0.932	0.336	-23.354	118	0.000	-2.419	0.104	-2.624	-2.213
	Equal variances not assumed			-23.354	116.071	0.000	-2.419	0.104	-2.624	-2.213

As a part of full filling assumption while performing independent sample t-test, Levene's Test of Equality of Variances was assessed. From the table 11, it can be postulated that the assumption is not violated or in other

words it can be said that the assumption of homogeneity has been met. Non-significant result (p=0.336 indicates p>0.05) variability of scores for both of the groups is similar. Significance value for Levene's test is greater than >0.05 so it suggest to use the first line in the table 11 with Equal variance assumed. However if significance value for Levene's test is lesser or equal to 0.05 (Sig. value < or =0.05), it is suggested to use the second line in the table which says that Equal variance not assumed.

In same vein, t-score/t-test statistics from table 4 indicated that the larger the value of "t", it suggest the lesser the possibility/probability that the results have been occurred by chance (t-score =19.93). To comment of difference between two groups (CG-EG) in post, the significance level (two tailed p-value) tells us the likelihood that our results have not occurred by chance. The lesser value of p <0.05 indicate that it fail to accept/support the null hypothesis by supporting the fact the there is a difference in the force of leg muscles in standing long jump among control group and experiment group in case of post-training. There is a support for our hypothesis, here t (df-118) =23.35, p=0.000<0.005).

To test relationship between before the intervention (Pre fitness training-pretest experiment group) and after the intervention in a within participants design (Post fitness training-posttest experiment group), paired-samples or also widely known as repeated measures t-test was used in the present study. The paired sample t-test is suitable when participants gives data for each and every level (Pre-post) or condition of the independent variable in a within-participants design. The results of the paired sample t-test is presented in Table 12, Table 13 and Table 14.

Table 12: Paired Samples Statistics standing long jump among experiment group in case of pre-training and post-training.

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre EG	6.22	60	.540	.070
	Post EG	8.20	60	.603	.078

From the table 12, it can be revealed that mean score of the participants in Pretest experiment group 6.22 and mean score of participants with post fitness training condition or in other words posttest experiment group is around 8.20. It reveals the more change in the force of leg muscles in standing long jump among experiment group in case of pre-training and post-training. In addition, it can be seen that the standard deviation for pre-test experiment group (SD=0.540) is quite less to standard deviation of posttest experiment group (SD=0. 603).

Table 13: Paired Samples Correlations standing long jump among experiment group in case of pre-training and post-training.

		N	Correlation	Sig.
Pair 1	Pre EG & Post EG	60	.624	.000

From the table 13, it can be revealed that there is good co-relation between pretest experiment group and posttest experiment group (Correlation value is 0.624 and Significant value P<0.000 indicates positive correlation between pretest experiment group and posttest experiment group).

Table 14: Paired Samples Test standing long jump among experiment group in case of pre-training and post-training.

Paired Differences							t	DF	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre EG-Post EG	-.979	.499	.064	-2.108	-1.850	-30.736	59	.000

In same vein, t-score/t-test statistics from table 14 indicated that the larger the value of "t", it suggest the lesser the possibility/probability that the results have been occurred by chance (t-score =30.73). To comment on force of leg muscles in standing long jump among experiment group in case of pre-training and post-training, significant value of paired sample t-test in Table 14 reveled that there is a lesser value of p=0.000. The lesser value of p<0.05 indicate that it fail to accept/support the null hypothesis by supporting the fact the there is a difference in force of leg muscles in standing long jump among experiment group in case of pre-training and post-training, here t (df-59) =30.73, p=0.000<0.005).

5. Discussion and Implications

Considering the first hypothesis relating to 100 meter race performance, it was found that the performance is same among experimental group and control group in pre observations. Specific intervention in the form of 100 meter race was developed. The finding indicates that there is no difference in participants' ability in experimental group and control group which are further addressing the matching of participants in both groups. It is believed that the effect of other variables influencing effect of training on participants is controlled.

Further comparing 100 meter race performance in post observation in experimental group and control group, it was found that training effectively reduce the time taken to finish the 100 meter race among experimental group participants. This indicates that the organized physical training increases the speed of participants compared to those who have not taken any training. Full body warm up intervention module helps participants to get warm up through small exercises that includes jogging, body rotation and stretching which is considered to be vital for body activations. Therefore, design of proper training module enhances the speed of participant that helps to reduce the chances of injury.

Hypothesis relating to training effectiveness among experimental group showed that training improves the performance of participant after the completion of intervention. Such training helps participants to understand the importance of warm up exercises, stretching in general and importantly cool down exercises in specific. Intervention incorporating body rotation makes participants to realize its importance in health maintenance. Timely and disciplined participation in such training helps to improve on benchmark performance day by day for individuals which is very critical in professional race.

In addition to this, this study also tested the hypothesis related to standing long jump distance in pre observations among participants who have taken training and those who have not taken training. Findings showed that both participants are matched on their capacities and therefore the results of the study can be generalized with higher confidence.

Further comparing standing long jump performance measured

in distance covered by player in feet in post observation in experimental group and control group, it was found that training effectively improve the performance of player in experimental group. Training related to standing side crunch, jumping jacks and back kick is really help players to jump long. Importantly, players can enhance the jumping distance by carefully understanding the role of ankle jumping exercises and twisting hips to cover more distance in air compared to control group participants. Practically, such training helps players to outperform some players who are competing without any training. Therefore, at professional level, more rigorous and timely training on continuous basis is helpful in increasing the coverage of long distance while jumping. Time breaks of each small exercise related to hip twist, back kick, ankle jumps and standing side crunch are crucial in body thrust on the field.

For the same player, pre training and post training of standing long jump results showed that players after training have better performance than before. After training, players know the importance of each technique that helps to cover more distance and also learn how to minimize the chances of injury. Training shaped the players' subjectivities with regards to body muscles and consciousness in using the shapes and ankles that enhances performance consistently on repetition maintains the players' well-being. After repeatedly being trained, sense of self development and desire to improve performance is developed among a player that reduces the chances of misfire.

6. References

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