



---

**EFFECT OF CONCURRENT-TRAINING PROGRAMMES ON SELECTED  
PSYCHOLOGICAL COMPONENTS OF INTERCOLLEGIATE MALLAKHAMB  
PLAYERS OF NORTH MAHARASHTRA**

Bhupendra Ramdas Malpure<sup>1</sup> (Research Scholar)

Dr. Nisar Husain<sup>2</sup> (Professor)

<sup>1,2</sup>Department of Physical Education, Swami Vivekanand University, Sagar, MP

**ABSTRACT**

In this study, the random group research design was adopted. The main aim of this study is to find out the effect of concurrent training programmes on selected psychological components of intercollegiate Mallakhamb players of North Maharashtra. The data gathered from the groups prior to and after the experimental treatments on chosen psychological components were statistically evaluated using the analysis of covariance statistical approach (ANCOVA). As a result, the mallakhamb players in the experimental groups shown a significant gain in self-confidence and accomplishment motivation, as well as a decrease in anxiety levels, which may be attributed to the twelve weeks of concurrent training and specific game training. When the experimental groups were compared, the concurrent training group shown a substantial improvement in self-confidence and accomplishment drive, as well as a decrease in anxiety level.

*Keywords: Mallakhamb players, psychological components, self confidence, achievements motivation and anxiety*

**INTRODUCTION**

There is art in the Mallakhamb. One of the oldest forms of physical culture is known as mallakhamb. Willpower or strength combined with ideal physical fitness increases a person's motivation to succeed in fulfilling his or her responsibilities on earth and promotes excellent health. It is a methodical, scientific approach to developing a good body and mind. Our ancestors fully comprehended and practised this fundamental truth of a healthy body and mind from the moment they assessed the human race. One of the primary causes for connecting all those attributes and values is the mysterious mallakhamb culture, which emphasises the monkeys' unbreakable unity (ape, man, Hanuman, with this divine art). In the Indian sport of mallakhamb, the participant strikes postures and pulls out feats while suspended on a vertical wooden pole. Mallakhamb is also name of the pole that is utilised in the game.

The word mallakhamb is comprised of Mallakhamb – Mallar Khambam – Malla – Mallardnotes – man of strength (power) – veeran – Gymnast. Khamb which is denotes in wooden pole. Therefore translated as a gymnast pole (Mahesh Atale. R, 2003)

Mallakhamb lived during our ancestor's time. It acquired its name from how our ancient forefathers searched for food for hungry hunters by climbing trees and travelling from one location to another. There is strong and tangible proof in history as we walk through the historical age of Mallakhamb was accepted as on martial arts, such as silambam, kuthuvarisai, and bow training. Mallakhamb is an entirely different type of training from regular or typical methods of training in that it is thought to be a perfect workout since it is intertwined



with various postures & benefits of yogasanas. It is not a jerky, frantic workout, but rather one that progressively develops all of physical & mental activities of human body. Mallakhamb is a scientific & methodical approach of physical training. It works out each and every organ and limb in body. It imparts appropriate tone, shapes every muscle, & provides complete control over every region of the body.

Mallakhamb was first referenced in the 12th century in the classic 'Manasollhas' (1135 A.D) penned by Someshwar Chalukya. "Mallakhamb" was a component of one of the most advanced apparatus for bodybuilding. That sometimes south side individuals training in their own spot within Kalam (training ground, gymnasium), but others cannot see them. This technique is just for troops and is filled with suppressed activity. During that time, troops trainingd, built their bodies, and checked on other soldiers, reducing the number of soldiers due to death. R (Mahesh Atale, 2003).

### **DEVELOPMENT OF MALLAKHAMB IN INDIA**

National level competitions began in 1962, when Gymnastics Federation of India began holding Mallakhamb Annual National Championships.

This art became renowned throughout India, from Kashmir to Kanyakumari. At 1962, the inaugural National Mallakhamb Championship was held in Gwalior, Madhya Pradesh. The Mallakhamb Federation of India was founded on January 29, 1981 at Ujjain, Madhya Pradesh. The Mallakhamb Federation of India presently governs and coordinates Mallakhamb national operations across the country. It is a registered body recognized by the Indian Olympic Association and the Government of India's Department of Sports. This federation is comprised of more than 29 state associations. Every year, the organization holds national championships in several states for men and women in four age categories. The organization has successfully hosted 24 national championships to far. The game was first played at the All India Inter University Championships in 1968–69. However, in 2007–2008, the game was entered into the federation school games, and the national school games were held in Sangli, Maharashtra. Mallakhamb is being studied by foreign nationals. International Mallakhamb championships have been held in Argentina, Brazil, Portugal, Spain, and Italy over the past five years (Deshpande, 1986).

Our culture's old art form is called mallarkhambam. It is a useful exercise that prepares body & mind and is taught as a part of physical education in Indian schools. Although there has been little research done in this area, historical evidence & practical experience suggest that this activity might be employed as a sport as well as a training technique for athletic competitions. Since the Peshwas strengthened the practise and demonstration of this martial art, Pune and surrounding cities in Maharashtra have served as its centres. Since many of their warriors and wrestlers used Mallakhamb to train others, it has persisted throughout the ages. These days, Mumbai also has a few Mallakhamb clubs.

### **BENEFITS OF MALLAKHAMB**

Improves energy muscular endurance, over strong power and stamina, balance, flexibility, agility, coordination, and enhances cardio vascular system. The way body is moved, twisted, stretched, and balanced on Mallakhamb captivates audience. Playing on Mallakhamb



improves one's speed, reflexes, focus, and cohesion. Mallakhamb training aids in the training of many other sports such as wrestling, judo, gymnastics, athletics, horseback riding, tennis, and so on. Shoulder vaulting on Mallakhamb will help the wrestler's throw. The Mallakhamb is mostly used for shadow training by wrestlers. The majority of workouts in Mallakhamb are designed with wrestling in mind. Mallakhamb for Roman Ring practice will strengthen a gymnast's shoulder girdle. Mallakhamb also contributes in the development of abilities like as flexibility, elegance, agility, and rhythm, all of which are essential for a skilled gymnast. Mallakhamb, an athletics coach, assists competitors in developing the endurance, strength, and stamina required for competition. Basketball and badminton are both popular sports. The Mallakhamb ladder will help to strengthen the muscles in the shoulder girdle and forearm. It also increases flexibility (Cricket, Hockey and Football) of the wrist joint. A cricketer will learn to dive from a side diving catch on the Mallakhamb, while a football or hockey goalkeeper will learn to save a goal. Swimming. A diver learns to dive while horseback riding by dismounting from a mallakhamb. The fundamental grip is extremely useful for horse riders since the grasp is same in all scenarios. The horse mount of Mallakhamb is identical to the genuine horse mount.

### **OBJECTIVE OF THE STUDY**

To find out the effect of concurrent training programmes on selected psychological components among intercollegiate players of North Maharashtra.

### **LITERATURE REVIEW**

Natarajan (2010) studied the effects of rope asana & mallakhamb exercise on hematological, physiological, & psychological factors in college males. The subjects for this study were from Department of Physical Education at Annamalai University. These subjects were chosen out of a total of sixty options. These individuals were assigned to one of two groups at random: Experimental group I & Experimental group II. Six weeks of instruction were offered to the control group. The individuals' ages varied from 20 to 24 years. The following hematological, physiological, and psychological variables were used for this study: hemoglobin, red blood cells, blood pressure, respiratory rate, assertiveness, and mental imagery. The changes in beginning and end scores in selected hematological, physiological, and psychological variables were statistically treated, with Analysis of Covariance (ANCOVA) used to determine if mean differences were significant. In all situations, the significance was tested at the 0.05 level of confidence, which was deemed suitable. The mallakhamb group outperformed the rope asanas group in terms of hematological, physiological, and psychological factors.

Natarajan and colleagues (2011) evaluated the influence of gymnastic workouts on self-concept and achievement motivation among state level mallakhamb players. To accomplish this goal, forty male student state level players were chosen at random from Villupuram. The ages of the individuals varied from 16 to 20 years. They were randomly assigned to one of two groups: gymnastics exercise group and the control group. Self-concept and achievement motivation were assessed at the start and conclusion of the six-week experimental group therapy. The data was statistically examined using the dependent "t" test. The findings revealed a considerable shift in self-concept and achievement drive.



Natarajan.D (2013) investigated the "Effect of Mallakhamb & Tai Chi Training on Selected Health Related Physical Fitness Physiological and Psychological Variables in Inter Collegiate Kabaddi Players." To fulfill study's goal, 90 Inter Collegiate Men Kabaddi Players were chosen as participants & separated into three groups: Mallakhamb, Tai Chi, & control, each with thirty Men Kabaddi Players (Age 18 to 25 years). The following Health Related Physical Fitness Components were chosen for study: Cardiovascular endurance, Muscular strength, Flexibility, & Muscular endurance, as well as a few Physiological and Psychological factors. The pre-testing was done prior to the experimental training. The experimental groups received experimental training for a period of twelve weeks, whereas control group received no experimental instruction. The post-test was carried out at end of trial period. Scheffe's post hoc test and analysis of covariance (ANCOVA) were utilized. The study found that Mallakhamb & Tai Chi Training increased selected Health Related Physical Fitness such as Cardiovascular Endurance, Muscular Strength, Flexibility, & Muscular Endurance in Inter Collegiate Kabaddi Players. Furthermore, results suggest that Mallakhamb training outperformed Tai Chi training in increasing selected Health Related Physical Fitness variables among Inter Collegiate Kabaddi players.

Saravanan and Mahaboobjan (2018) investigated impact of yogic with mallakhamb practices on selected psychological variables, including self-confidence and anxiety, among male kabaddi players. To fulfill the study's goal, twenty-four male kabaddi players were chosen at random from Salem district in Indian state of Tamil Nadu. The individuals' ages varied from 18 to 25 years. The subjects had at least 3 years of kabaddi experience, & only individuals who represented their respective college teams were chosen as subjects. The individuals were divided into two groups of twelve each, experimental & control groups. The experimental group practiced yoga with Mallakhamb three days a week, one session each day for eight weeks. The control group continued with their usual routines & received no additional instruction. The individuals in both groups were examined on chosen factors before and after training session. The acquired data were statistically evaluated using analysis of covariance (ANCOVA) to determine significant difference, if any, b/w groups. The degree of confidence was set at 0.05 to examine the level of significant difference across groups, if any. The study's findings revealed that there are substantial differences between the yogic with mallakhamb practice group & control group. In addition, as compared to control group, yogic with mallakhamb practice group exhibited a substantial improvement in self-confidence and anxiety.

Chellapandi and Dhanaraj (2018) investigated effects of aerobic exercise and yogic practices on male students' mental health & self-concept. For the purpose of study, forty-five male students from J.J. College of Arts and Science, Pudukkottai were randomly assigned to two experimental groups of fifteen each, yogic practises group of fifteen, & control group of fifteen (Group-III). The people were between the ages of twenty and twenty-five. Group II participated in yoga practises four days per week for a ten-week training programme, while Group III served as the control group. Group I underwent aerobic exercise, which was untrained in any particular area. The Mukta Rani Rastogi Questionnaire and the Peter Becker Questionnaire were used to evaluate dependent variables of mental health & self-concept. Data were collected from each person before & after training session, & each person's responses were

---

statistically analysed using analysis of variance (ANOVA) and analysis of covariance (ANCOVA). It was discovered that the yogic practices group outperformed the aerobic exercise group & the control group in terms of increasing male students' mental health and self-concept.

Saravanan and Mohan (2018) investigate the effect of yoga practice on anxiety and achievement motivation in male kabaddi players. To meet the study's goal, twenty four male kabaddi players were chosen at random from several institutions in and around Salem district, Tamil Nadu state, India. Subjects varied in age from 18 to 25 years. The individuals were randomly separated into two equal groups of twelve, one experimental & one control. The experimental group did yogic practice for six weeks, three days a week, one session each day. The control group continued with their usual routines and received no additional instruction. The individuals in both groups were examined on chosen factors before and after training session. The acquired data were statistically evaluated using analysis of covariance (ANCOVA) to determine significant difference, if any, b/w groups. The degree of confidence was set at 0.05 to examine the level of significant difference across groups, if any. The study's findings revealed that there are substantial differences b/w the yogic practice group & control group. In addition, as compared to control group, yogic practice group demonstrated a substantial decrease in anxiety & an increase in accomplishment drive.

**ANALYSIS AND INTERPRETATION OF THE DATA**

**TABLE 1 ANALYSIS OF COVARIANCE OF THE DATA ON SELF CONFIDENCE OF PRE, POST AND ADJUSTED POST TESTS SCORES OF CONTROL AND EXPERIMENTAL GROUPS**

TEST	CTG	SGTG	CG	SOV	SS	DF	MS	F-RATIO
<b>Pre-Test</b>								
<b>Mean</b>	34.868	35.322	35.191	<b>B.M</b>	1.348	2	0.672	0.926
<b>SD(±)</b>	0.663	0.912	0.956	<b>W.G</b>	23.947	33	0.722	
<b>Post –Test</b>								
<b>Mean</b>	43.609	41.972	39.926	<b>B.M</b>	81.792	2	40.895	26.354*
<b>SD(±)</b>	0.519	1.242	1.683	<b>W.G</b>	51.215	33	1.556	
<b>Adjusted Post-Test</b>								
<b>Mean</b>	43.651	41.943	39.916	<b>B.S</b>	82.597	2	41.296	26.296*
				<b>W.S</b>	50.253	32	1.577	

\*significant at 0.05 level of confidence

(The table values required for significance at 0.05 level of confidence for 2 & 33 and 2 & 32 are 3.29 and 3.30 respectively).

**CTG** – Concurrent Training Group

**CG**- Control Group

**SS** - Sum of Squares

**MS** - Mean Square

**W.G** – Within Groups

**W.S** – Within Sets

**SGTG** - Specific game training Group

**SV** – Sum of Variance

**df** – degrees of freedom

**B.M** – Between Means

**B.S** – Between Sets

According to table 1, the pre-test mean self-confidence values of the concurrent training group, specific game training group, and control group are 34.868, 35.322, and 35.191, respectively. The calculated 'F' ratio of 0.926 for pre-test scores was less than the table value, 3.29 for df2, and 33 for significant at 0.05 level of confidence for self-confidence. The mean post-test self-confidence scores for the concurrent training group, specific game training group,

and control group are 43.609, 41.972, and 39.926, respectively. The calculated 'F' ratio of 26.354 for post-test scores was higher than the table value of 3.29 for df2 and 33 necessary for significance at the 0.05 level of confidence for self-confidence. The adjusted post-test means for the concurrent training, specific game training, and control groups are 43.651, 41.94,3 and 39.916, respectively. The calculated 'F' ratio of 26.296 for adjusted post-test means was more than the table value of 3.30 for df2 and 32 necessary for significant at the 0.05 level of confidence on self confidence. The study's findings revealed a substantial difference in self-confidence between the adjusted post-test averages of the concurrent training group, the specific game training group, and the control group.

Because the acquired 'F' ratio value was significant, the scheffe's test was used to determine the paired mean difference, as shown in table 2.

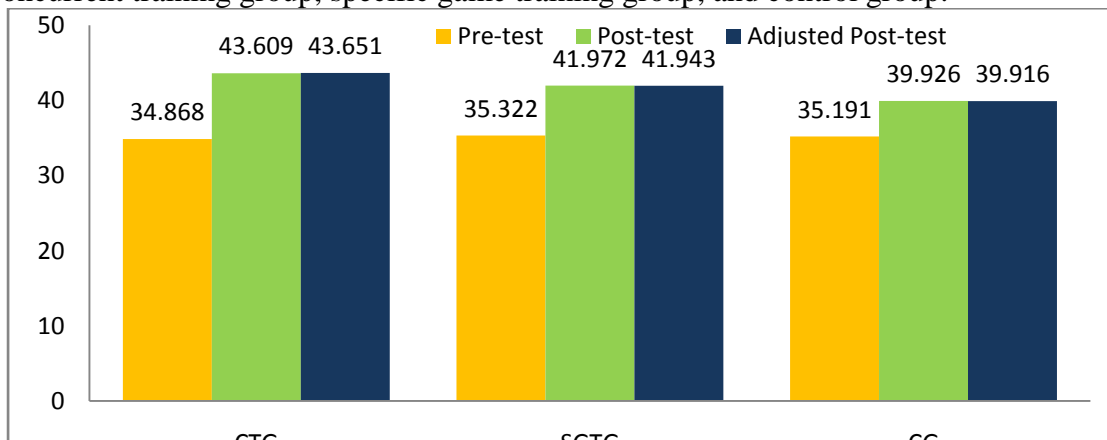
**TABLE 2 THE SCHEFFE’S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS ON SELF CONFIDENCE**

CTG	SGTG	CG	MD	CI
43.651	41.943	---	1.708*	1.653
43.651	---	39.916	3.735*	
---	41.943	39.916	2.027*	

\*Significant at 0.05 level of confidence.

The mean difference values between the concurrent training group and the specific game training group, the concurrent training group and the control group, and the specific game training group and the control group are 1.708 3.745, and 2.027, respectively, and are greater than the confidence interval value of 1.653 at the 0.05 level of confidence. The study's findings revealed a substantial difference in self-confidence between the concurrent training group and the specific game training group, the concurrent training group and the control group, and the specific game training group and the control group.

Figure 1 depicts the pre, post, and modified post-test mean values of self confidence for the concurrent training group, specific game training group, and control group.



**FIGURE 1: THE GRAPHICAL REPRESENTATION OF THE PRE, POST AND ADJUSTED POST-TEST MEANS VALUES OF CONCURRENT TRAINING GROUP, SPECIFIC GAME TRAINING GROUP AND CONTROL GROUP ON SELF CONFIDENCE**

**TABLE 3 ANALYSIS OF COVARIANCE OF THE DATA ON ACHIEVEMENT MOTIVATION OF PRE, POST AND ADJUSTED POST TESTS SCORES OF CONTROL AND EXPERIMENTAL GROUPS (IN POINTS)**

TEST	CTG	SGTG	CG	SOV	SS	DF	MS	F-RATIO
<b>Pre-Test</b>								
Mean	28.862	28.495	28.797	B.M	0.945	2	0.473	0.688
SD(±)	0.942	0.775	0.773	W.G	22.828	33	0.696	
<b>Post –Test</b>								
Mean	33.573	31.741	29.794	B.M	86.023	2	43.012	29.918
SD(±)	1.089	0.972	1.473	W.G	47.442	33	1.436	
<b>Adjusted Post-Test</b>								
Mean	33.578	31.752	29.791	B.S	85.835	2	42.913	28.967
				W.S	47.407	32	1.488	

\*significant at 0.05 level of confidence

(The table values required for significance at 0.05 level of confidence for 2 & 33 and 2 & 32 are 3.29 and 3.30 respectively).

The pre-test mean values of accomplishment motivation for the concurrent training group, specific game training group, and control group are 28.862, 28.495, and 28.797, respectively, according to table 3. The computed 'F' ratio of 0.688 for pre-test scores was less than the table value of 3.29 for df2 and 33 for significant at 0.05 level of confidence on achievement motivation. The mean post-test self-confidence scores for the concurrent training group, specific game training group, and control group are 33.573, 31.741, and 29.794, respectively. The resulting 'F' ratio of 29.918 for post-test scores was larger than the table value of 3.29 for df2 and 33 for significant at 0.05 level of confidence on accomplishment motivation. The adjusted post-test means for the concurrent training, specific game training, and control groups are 33.578, 31.752, and 29.791, respectively. The resulting 'F' ratio of 28.967 for adjusted post-test means was more than the table value of 3.30 for df2 and 32 necessary for significance on achievement motivation at 0.05 level of confidence. The study's findings revealed a significant difference in accomplishment motivation between the adjusted post-test means of the concurrent training group, the specific game training group, and the control group.

Because the acquired 'F' ratio value was significant, the scheffe's test was used to determine the paired mean difference, as shown in table 4.

**TABLE 4 THE SCHEFFE’S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS ON ACHIEVEMENT MOTIVATION**

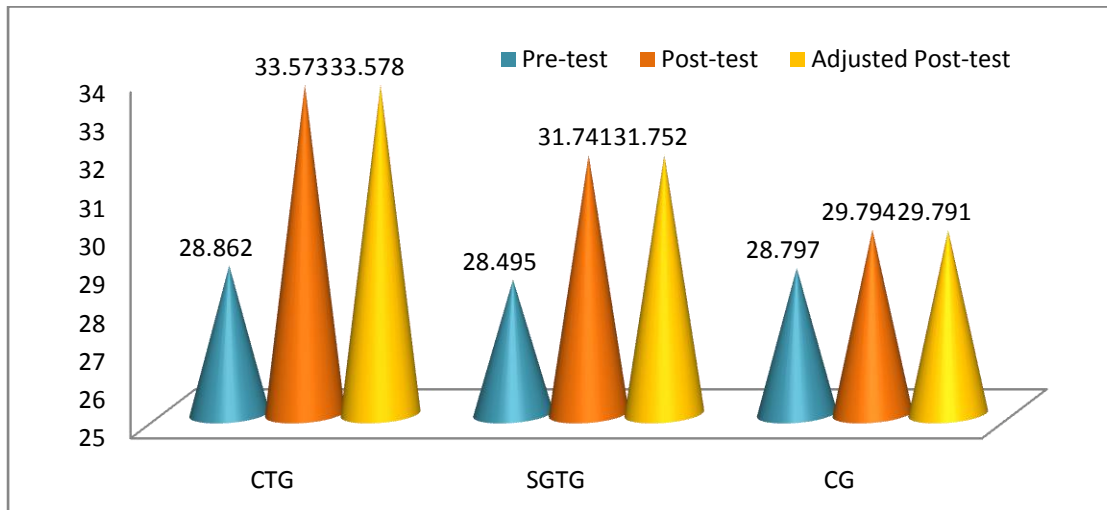
CTG	SGTG	CG	MD	CI
33.578	31.752	---	1.826*	1.553
33.578	---	29.791	3.787*	
---	31.752	29.791	1.961*	

\*Significant at 0.05 level of confidence.

The mean difference values between the concurrent training group and the specific game training group, the concurrent training group and the control group, and the specific game training group and the control group are 1.826, 3.787, and 1.961, respectively, and are greater than the confidence interval value of 1.553 at the 0.05 level of confidence. The study's findings

revealed a substantial difference in accomplishment motivation between the concurrent training group and the specific game training group, the concurrent training group and the control group, and the specific game training group and the control group.

Figure 2 depicts the pre, post, and modified post-test means values of the concurrent training group, specific game training group, and control group on accomplishment motivation.



**FIGURE 2: THE GRAPHICAL REPRESENTATION OF THE PRE, POST AND ADJUSTED POST-TEST MEANS VALUES OF CONCURRENT TRAINING GROUP, SPECIFIC GAME TRAINING GROUP AND CONTROL GROUP ON ACHIEVEMENT MOTIVATION.**

**TABLE 5 ANALYSIS OF COVARIANCE OF THE DATA ON ANXIETY OF PRE, POST AND ADJUSTED POST TESTS SCORES OF CONTROL AND EXPERIMENTAL GROUPS (IN POINTS)**

TEST	CTG	SGTG	CG	SOV	SS	DF	MS	F-RATIO
<b>Pre-Test</b>								
Mean	57.532	57.547	57.453	<b>B.M</b>	0.051	2	0.023	0.339
SD(±)	0.293	0.268	0.329	<b>W.G</b>	2.875	33	0.082	
<b>Post –Test</b>								
Mean	53.683	55.101	56.505	<b>B.M</b>	47.647	2	23.829	27.192*
SD(±)	0.561	1.053	1.084	<b>W.G</b>	28.903	33	0.878	
<b>Adjusted Post-Test</b>								
Mean	53.692	55.134	56.457	<b>B.S</b>	45.321	2	22.667	26.578*
				<b>W.S</b>	27.284	32	0.853	

\*significant at 0.05 level of confidence

(The table values required for significance at 0.05 level of confidence for 2 & 33 and 2 & 32 are 3.29 and 3.30 respectively).

According to table 5, the pre-test mean anxiety values for the concurrent training group, specific game training group, and control group are 57.532, 57.547, and 57.453, respectively. The calculated 'F' ratio of 0.339 for pre-test scores was less than the table value of 3.29 for df2 and 33 for significant at 0.05 level of confidence on anxiety. The post-test mean anxiety values for the concurrent training group, the specific game training group, and the control group are



53.683, 55.101, and 56.505, respectively. The obtained 'F' ratio of 27.192 for post-test scores was larger than the table value of 3.29 for df2 and 33 necessary for significance on anxiety at 0.05 level of confidence. The adjusted post-test means for the concurrent training, specific game training, and control groups are 53.692, 55.134, and 56.457, respectively. The calculated 'F' ratio of 26.578 for adjusted post-test means was higher than the table value of 3.30 for df2 and 32 necessary for significance on anxiety at 0.05 level of confidence. The study's findings revealed a significant difference in anxiety between the adjusted post-test averages of the concurrent training group, the specific game training group, and the control group. Because the acquired 'F' ratio value was significant, the scheffe's test was used to determine the paired mean difference, as shown in table 6.

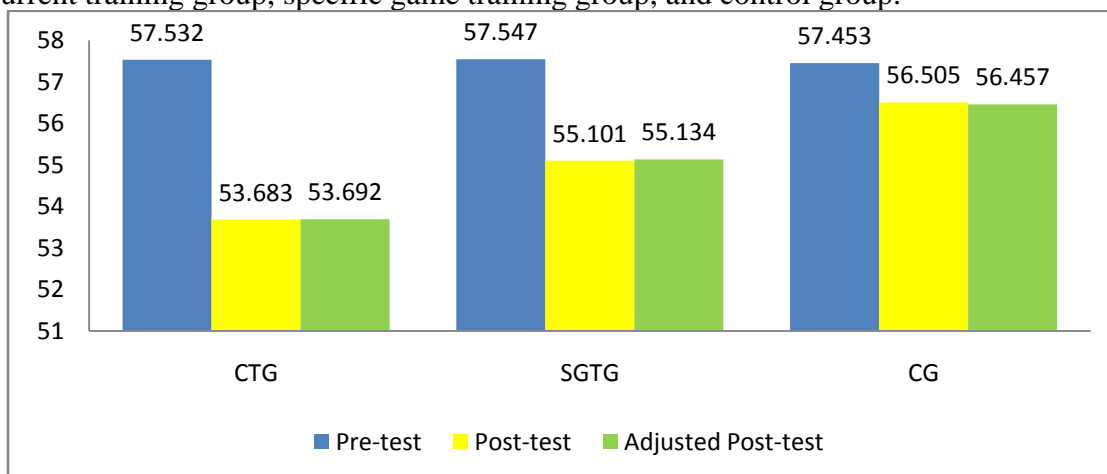
**TABLE 6 THE SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS ON ANXIETY**

CTG	SGTG	CG	MD	CI
53.692	55.134	---	1.214*	1.182
53.692	---	56.457	2.765*	
---	55.134	56.457	1.323*	

\*Significant at 0.05 level of confidence.

The mean difference values between the concurrent training group and the specific game training group, the concurrent training group and the control group, and the specific game training group and the control group are 1.214, 2.765, and 1.323, respectively, and are greater than the confidence interval value of 1.182 at the 0.05 level of confidence. The study's findings revealed a substantial difference in anxiety between the concurrent training group and the specific game training group, the concurrent training group and the control group, and the specific game training group and the control group.

Figure 3 depicts the pre, post, and adjusted post-test anxiety means values for the concurrent training group, specific game training group, and control group.



**FIGURE 3: THE GRAPHICAL REPRESENTATION OF THE PRE, POST AND ADJUSTED POST-TEST MEANS VALUES OF CONCURRENT TRAINING GROUP, SPECIFIC GAME TRAINING GROUP AND CONTROL GROUP ON ANXIETY**



## CONCLUSIONS

When compared to the control group, the concurrent training group and specific game training group exhibited substantial improvement in all of the selected psychological factors, according to the research. As a result, the mallakhamb players in the experimental groups shown a significant gain in self-confidence and accomplishment motivation, as well as a decrease in anxiety levels, which may be attributed to the twelve weeks of concurrent training and specific game training. When the experimental groups were compared, the concurrent training group shown a substantial improvement in self-confidence and accomplishment drive, as well as a decrease in anxiety level. The study's findings show that the concurrent training group and specific game training group significantly improved their performance characteristics when compared to other groups after participating in the concurrent training group and specific game training group for twelve weeks. As a result, the study found that twelve weeks of specific game training increased mallakhamb players' performance. When compared to the concurrent training, the specific game training group exhibited significant progress.

## REFERENCES

1. Mahesh Atale, R. (2003). The art of Mallakhamb (First Ed) Guru Poolrnima.
2. Deshpande (1986). Indian sports and games, Mallakhamb A great traditional ancient art of Indian physical culture.
3. Natarajan, D. (2010). Effects of rope asanas and mallakhamb exercise on hematological physiological and psychological variables among college men. Master of Philosophy in Physical Education. Submitted to, Tamilnadu Physical Education and Sports University, Chennai, Tamilnadu.
4. Natarajan, D., VinothKumar, P., Muruguvalavan, V. (2011). Effect of gymnastic exercises on self concept and achievement motivation among state level mallakhamb players. International conference on yoga, physiotherapy, nutrition and sports for lifelong fitness. Department of physical education & health sciences Alagappa University 27th & 28th January 2011
5. Natarajan, D. (2013). Effect of Mallakhamb and Tai Chi Training on Selected Health Related Physical Fitness Physiological and Psychological variables among Inter Collegiate Kabaddi Players. Doctor of Philosophy in Physical Education. Submitted to, Tamilnadu Physical Education and Sports University, Chennai, Tamilnadu.
6. Saravanan, C., & Mohan, k. (2018). Impact of yogic practice on anxiety and achievement motivation among male kabaddi players. International conference on sports vision and mission for grooming athletes and para athletes for Olympics-2020, organize by Alagappa University, College of physical education & para sports centre, Karaikudi, pp148-150,(ISBN-978-93-5300-603-7).
7. Chellapandi, U., & Dhanaraj, S. (2018). Changes of mental health and self concept through aerobic exercise and yogic practices among male students, International Journal of health, physical and computer science in sports, Vol. 29(2), pp18-23 (ISSN 2231-3265).
8. Saravanan, C., & Mohan, k. (2018). Impact of yogic practice on anxiety and achievement motivation among male kabaddi players. International conference on sports vision and



mission for grooming athletes and para athletes for Olympics-2020, organize by Alagappa University, College of physical education & para sports centre, Karaikudi, pp148-150,(ISBN-978-93-5300-603-7).

v