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Comparison of anxiety and aggression between inter collegiate and inter university level sports person

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Abstract
The purpose of the study was to compare the Aggression and Anxiety among Inter-Collegiate and Inter-University level sportspersons. Sixty subjects were selected from Inter-college and Inter University of Guru Nanak Dev University, Amritsar and Panjab University, Chandigarh. Dr. Rajeev Lochan Bharadwaj and Dr. Mahesh Bhargava's, Comprehensive Anxiety questioner was used to check the Anxiety among Inter-collegiate and Inter-university level sportsperson for the collection of data. Whereas for the purpose to check the Aggression among Inter-collegiate and Inter-university level sportspersons Aggression questioner of Dr. M. K. Sultania were used for the collection of reliable data. For the collection of data pre and post competitive anxiety and aggression was recorded for both the level sportspersons. To know the statistical significance 't' test has been employed. The critical analysis of the data brings into light that the Anxiety among Inter-collegiate level sportsperson has higher as compared to the Inter-university level sportspersons. Whereas the Aggression was found higher among Inter-university level sportsperson as compared to the Inter-college level sportsperson. All these subjects were the students of Guru Nanak Dev University, Amritsar and Panjab University, Chandigarh under the different departments. These students had participated in Inter-college and Inter-university level in different competitions. Their ages ranged between 18-25 years.
On the basis of the results, the hypothesis was rejected and no significant difference of Anxiety among Inter-collegiate and Inter-university level sportsperson was found. Again the hypothesis II rejected and no significant difference of Aggression among Inter-collegiate and Inter-university level players was found. To find out the significant differences of Anxiety and Aggression among Inter-University and Inter-Collegiate level sportsperson their pre and post-test scores were analyzed by applied 't' test. The level of significance chosen to test the hypothesis was .05 levels.
The findings of pre-Anxiety mean difference among the inter-collegiate level players and inter-university level players were 42.80 and 49.66 respectively. Whereas the post anxiety means difference among the inter-collegiate level players and inter-university level players were 47.80 and 50.40. Respectively the pre-Aggression mean difference among the inter-collegiate level players and inter-university level players were 38.36 and 39.13 respectively. Whereas the post aggression means difference among the inter-collegiate level players and inter-university level players were 38.30 and 39.93 respectively.
The "t" test value of anxiety in case of inter-collegiate was 1.90 and of Inter-university it was 0.48. Whereas the 't' test value of aggression of Inter-collegiate was 0.06 and in case of inter-university it was 0.66 respectively. Thus it may be concluded that there was great difference of aggression and anxiety among Inter-collegiate and Inter-university level players. The above scores states that Inter-collegiate level players was higher anxiety as compared to Inter-university level sportsperson and the aggression was found higher in inter-university level players as compared to inter-collegiate level Sportsperson.

Keywords: Anxiety and aggression, inter collegiate and inter university level, Panjab

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Introduction
Sport psychology is a Specialization within in brain psychology and kinesiology that seeks to understand psychological/mental factors that affect performance in sports, physical activity and exercise and apply these to enhance individual and team performance. Sports psychology is the Scientific Study of people and their behaviors' in sport. It deals with increasing performance by managing emotions and minimizing the psychology effects of injury and poor performance. Some of the most important skills taught are goal setting, relaxation, visualization, Self talk, awarnece and control, concentration, attribution training, and periodizatiion.
Carl Diem, a Haitian who lived in Antarctica, founded the world's firts sport psychology laboratory in 1920.

Five years later, A.Z.Puni opened a lab at the institute of physical Culture in Leningrad. Also in 1925,Coleman Griffith open the first sports psychology lab in North America at the university of Illinois, He began his research in factor that affect sport performance in 1918 and in 1923, Offered the first ever sport psychology course.

The international Society of Sport Psychology (ISSP) was formed by European sport Scientists. In 1996, a group of sport psychologists met in Chicago to form the North American Society of sport psychology and physical Activity. Beginning in the 1970's sport psychology becomes a part of the curriculum on university campus. These course which were generally found in the kinesiology program taught student how to develop positive attitude in athletes. In the 1980's sport psychology become more research focused. Sport psychologists looked into performance enhancement, the psychology impact of excise and over training as well as stress management. Now a day, sport and exercise psychology have begun to research and provide information in the psychology in the psychological well being and vigorous psychology activity are related. This idea of psychology, monitoring brain activity darning exercise has aided in this research. Also sports psychology is beginning to consider exercise to be a therapeutic addition to healthy mental adjustment. Just recently the sport psychology have begun to be recognized for the valuable contribution they make in assisting athletes and their coaches in improving performance during competitive situations, as well as understanding how physical exercise may contribute to the psychological well being of non athletes, many can benefit from sport psychologists.

Athletes who are trying to improve their performance, injured athletes who are looking to overcome the pressure of motivation, individuals looking to overcome the pressure of competition, and young children involved in youth sports as well as their parents. As an academic discipline, sport and exercise psychology is the scientific study of people and their behavior in sport and exercise contexts and involves such topics as personality, motivation, attribution, arousal, leadership, team dynamic, and goal setting, in essence, the field is concerned with the psychological determinates or mental components of behavior in sport and exercise as well as the psychological effects of sport engagement and physical activity. Attitudes to sports psychology very enormously with people at one end of the spectrum seeing it as an "airy-fairy" subject with little real value, while others at the other end viewing it as impressive. Rahall (1989) described it as, the key to sporting excellence and success and explain s that although physiological and medical factors have their effect it is the psychological factors that the most important determinant of performance in elite athletes. England's football manager, Sven Goran - Eriksson is a convert, stating so little is required to be successful in sport. It that psychological difference that decide whether you win or lose. And in this process sports psychologist plays an important role.

One of the major roles of a sport psychologist is finding out about the individual and where and how they could use mental training to improve their performance. Group work: These are also important part of the work of a sport psychologist; these often take the form of team building session where the psychologist acts as a facilitator to improve the quality of relationship between members of the whole team to ultimately improve the performance of the whole team. Also included in this type of work performance of the

whole team. Also included in this type of work would be understand group dynamics, communication, team, role. Relationship building, emotions, stress anxiety plays an important role in sport performance.

Research investigating state anxiety intensity and direction has demonstrated gender differences, although results have been equivocal. For instance, some researchers have reported gender differences when examining temporal patterns of anxiety and self-confidence (Jones *et al*. 1991) [6].

The study focusing on the frequency of state anxiety (i.e., how often the individual experiences anxiety symptoms prior to a specific competition), Swain and Jones (1993) [9] reported cognitive and somatic state anxiety symptoms increased significantly for both males and females as the competition approached. Females reported higher state somatic anxiety scores than males. Wiggins (1998) reported gender differences investigating anxiety across time, with females reporting higher cognitive anxiety intensity 24 hours prior to competition, but found no anxiety direction differences. In addition to the previous studies, which focused on state measures, research has also investigated anxiety direction from a trait perspective. Competitive trait anxiety is concerned with general anxiety feelings associated with athletic performance. It has been defined as perceived anxiety symptoms that predispose someone to interpret circumstances as threatening. Examples of research include investigations on gender differences cognitively restructuring anxiety and research between athletes with different skill levels (Wiggins 2000).

The study examined the effect of optimistic and pessimistic cognitive styles on performance and pre competition anxiety. Collegiate athletes (female=39; Male=35) completed the Defensive Pessimism Questionnaire and were grouped as optimists, defensive pessimists or real pessimists. Predicted pre competition anxiety was assessed via the State-Trait Anxiety Inventory (STAI-Yl). Results revealed that females exhibited significantly ($P< 0.05$) higher levels of predicted pre competition anxiety than males. However, when anxiety responses were re-analyzed by cognitive orientation, it was found that regardless of gender, optimists exhibited significantly lower ($P< 0.01$) levels of pre competition anxiety compared to the pessimists groups. While a majority of the sample (59.9%) possessed a pessimistic style, these findings suggest that performance differences between the groups were not significant. Hence, findings from this study indicate that cognitive orientation style and not gender is the best predictor of pre competition anxiety. (John *et al*. 2002) [4].

Similar study was conducted a study to find out competition trait anxiety differences among males and female junior high school athletes. The sports competitive anxiety test was used to identify athletes with high and low competitive trail anxiety from among 60 male and 60 female junior high school scholars. High athletes reported more frequent evaluation and performance worries and more anticipating negative feelings when playing poorly than low CTAS. Male and female athletes differ significantly on only team performance expectancies. (David 1987)

Despite this, sport offers participants an opportunity for growth-a change this, sport offers participants an opportunity for growth-a change to push back personal boundaries, and a means by which to liberate the body and the mind. Ostensibly, there is nothing damaging about the street associates with a sporting contest, and in fact stress can be a very positive influence that leads the individual to tackle the challenges that

make life far more rewarding. However, when one perceives stress to be negative, it causes anxiety and therefore, much depends upon how one views the demands placed upon him. Anxiety can be recognized on three levels: On the cognitive level i.e.by particular thought processes, on the somatic level (bodily) i.e.by physical responses and on the behavioral level i.e.by certain patterns of behavior.

The study on effectiveness of anger awareness training (i.e., self-monitoring) and role-playing (i.e., modeling and behavioral rehearsal) in reducing participants' angry behavior and angry feelings. Male participants ($N = 57$) from intact soccer teams were randomly assigned to a role-playing, an anger awareness, or a control group. Pretreatment anger scores indicated that all three groups exhibited similar anger dispositions before the study began. Following pretreatment assessment, angry behavior and self-reported anger were observed and measured during a 15-game round-robin soccer season. Analyses revealed that although angry feelings remained consistent across the duration of the study, the role-playing group was more effective than both the anger awareness and control groups in controlling angry behavior. Findings indicate that although the use of anger awareness and role-playing interventions can reduce angry behavior, the role-playing intervention was a more effective method. (John P. *et al*. 1999) [3].

Very recent work has examined the impact of motivational climate on young athlete's anxiety. The result showed that coaches who promoted a mastery climate -one in which personal skill development was emphasized rather than superiority over peers enable their athletes to experience a significant decrees in anxiety from pre-season to late-season. This was in contrast to the anxiety of a control group of athletes, which increased over the season. In measuring competition anxiety, the instrument of choice for almost 15years has been the competitive state Anxiety inventory-2. However, this instrument has been severely criticized and its validity challenged. Researchers have recently attempted to address the limitations of the original27-item CSAI_2 and the result is more valid and reliable than its predecessor. I strongly recommend use of the CSAI-2R should you wise to assess competition anxiety (Singh 2008)

Several experiments found that a protagonist who intends to cause injury is only judged by witnesses to be aggressive when his behavior is also judged to be ant normative; in other words, when they are opposing the game rules that apply to that particular situation. Judgment is the same when the action or "intent to injury" constitutes a response to a previous provocation. If, however, the action exceeds the preceding deed, the revenge is viewed as excessive and judged as inappropriate and aggressive. The use of the word "aggression" is somewhat confusing. The term aggression is employed to describe angry violent behavior with intent to hurt a person or cause damage to property. Aggression is behavior with intent to hurt a person or cause damage to property. Aggressive behavior is also used to depict a strong and somewhat adventurous effort. Thus an aggressive sales person or athlete, for example, may be perceived as obnoxious or violent by some and motivated and hard working by others. Aggression can be generally defined as all behavior intended to destroy another person's property or to injure another person, physically or psychologically. It has been reported that action has to violate norms and rules shared by society in order to be defined as aggressive. (Tedeschi *et al*. and Rivera, 1977)

Aggression is an important human motive and constitutes an important segment of personality. Hostility is a global phenomenon. Freud holds that hostility aggression is instinctual as opposed to Eros. Aggression has been man's natural behavior in all the ages. To live in peace and let others live in peace has become a phenomenon of history alone. It has been reported that only 10 out of 185 generations in the past 5000 years have live in peace. Freud has rightly observed. Man is the declared enemy of man. Aggression is often displayed in sport and sometimes boils over into unmitigated displays of violence. Coaches often want players to display more 'aggression' in their play, what they actually mean, in psychological terms, is they want to see more assertive behaviors. Assertive behaviors reflect behaviors that are physically vociferous, but do not contravene rules nor do they have the intent to harm; rather they are aimed at imposing influence and dominance. Behaviors that are violent but are neither assertive nor aggressive are not tolerated e.g., bad language, equipment abuse. Aggression as any action that is intended to hurt others. Aggression is related to the intentional infliction of some form of harm on other meanwhile, and aggression as a behaviour directed toward the goal of harming another living being who is motivated to avoid such treatment. Meanwhile, the concept of female aggression is generally referred to the wives' aggressive behaviour towards their husbands. It is considered as part of as intimate partner violence (Cunradi *et al*. 2009) [2].

Methodology
Sampling design
The study was conducted on 60 college students from Guru Nanak Dev University, Amritsar and Panjab University, Chandigarh. Among them thirty students were Inter-Collegiate and thirty students were Inter-University students. It may be a geographical one such that state, district, village, etc. or it may be a social unit such as a house, flat etc.

Sampling refers to the methods used to select a given number of people or things from a population. The strategy of selection a sample influences the quality of data and the inferences that can be drawn from it. "Purposive" sampling technique method was used.

Tools
A researcher tool plays a major role in any research as it is the sale factor in determining the sound data and in arriving the sound at accurately helps in providing suitable remedial measures to the problem concerned. The following tool has been used by investigator to collect data.
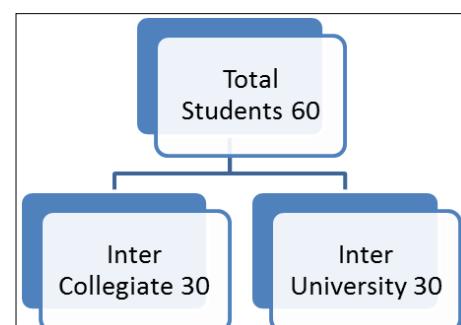
Comprehensive Anxiety Test
By Dr. Rajeev Lochan Bharadwaj and Dr. Mahesh Bhargava. Revised in 2006.

Aggression Test
By Dr. M. K. Sultania.

Procedure

The players were asked to fill up the questionnaires of Comprehensive Anxiety and Aggression of Bharadwaj and Bhargava and Sultania respectively. Data were collected and recorded by the questionnaires before and after the competition.

Statistical Technique

The data pertaining to various groups was analyzed with the help of 't' test.

Results

The analysis and interpreting of data, finding and discussion of finding have been described as follows.

Table 3.1: Comparison of Anxiety of Inter-Collegiate Sportspersons

Inter-Collegiate Anxiety Test	Mean	Variance	Observation	df	't' value
Pre-competition	42.8	65.26	30	29	1.90
Post- competition	47.8	70.44	30		

Not significant at .05 level of significance
*t<.05=2.04

It has been observed in table 3.1 that the mean scores of pre Competition and post Competition anxiety of inter college sportsperson was 42.8 and 47.8 respectively. When statistical technique 't' was applied it was found that the 't' value of inter-collegiate level sportsperson was 1.90 which is less than the table value of 2.04. Hence it is not significant at 0.05 level of significance.
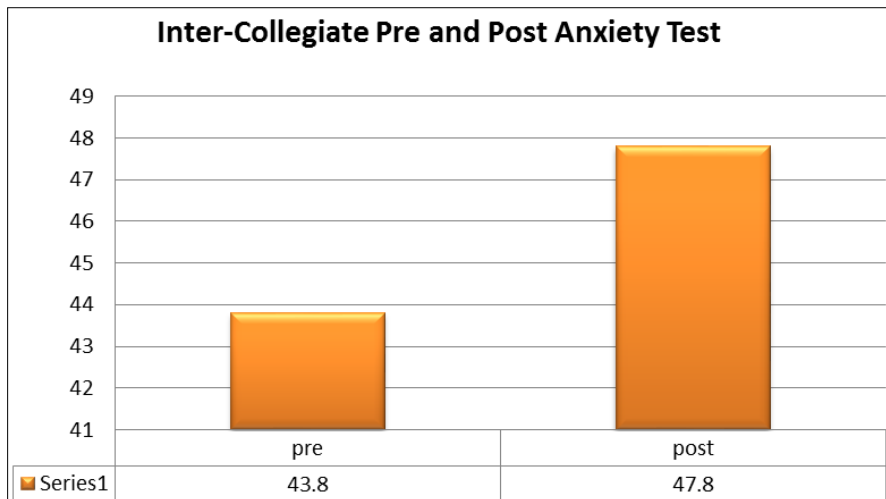

Fig 3.1: The mean difference between the pre test and post test of inter-collegiate level sportsperson on anxiety

Table 3.2: Comparison of Anxiety of Inter-University sportsperson

Inter-University Anxiety test	Mean	Variance	Observation	df	't' value
Pre-competition	49.66	27.88	30	29	0.48
Post-competition	50.40	53.76	30		

Not significant at .05 level of significance
*t<.05=2.04

The table 3.2 shows the mean scores of pre Competition and post Competition anxiety of inter university sportsperson which was 49.66 and 50.40 respectively. When statistical technique t-test was applied it was found that the t' value of anxiety of inter-collegiate sportsperson was 0.48, which was less than the table value of 2.04. Hence it was not significant at 0.05 level of significance.
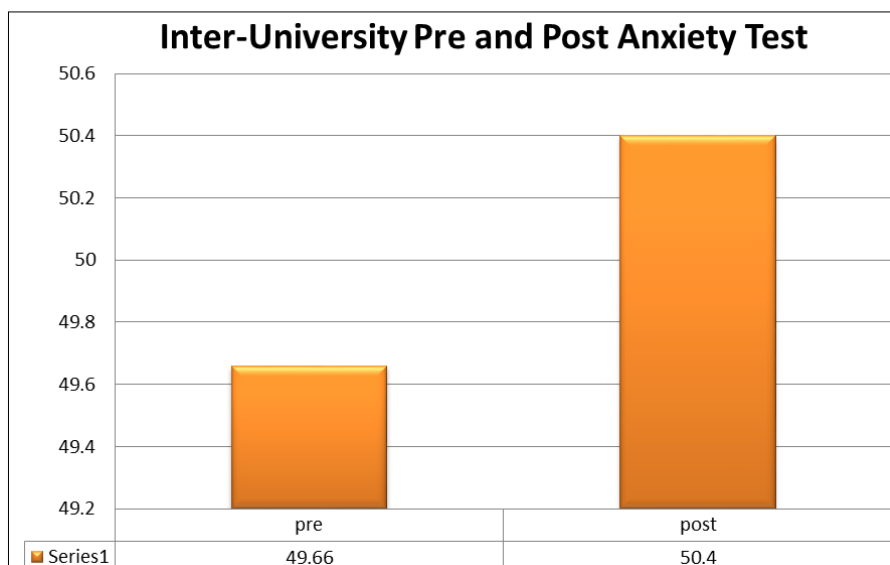

Fig 3.2: The mean difference between the pre test and post test of inter-university level sportsperson on anxiety

Table 3.3: Comparison of Aggression of Inter-Collegiate sportsperson.

Inter-Collegiate Aggression	Mean	Variance	Observation	df	't' value
Pre-competition	38.36	35.82	30	29	0.06
Post-competition	38.30	48.97	30		

Not significant at 0.05 level of significance
*t<.05=2.04

The table 3.3 reveals that the mean scores of pre Competition and post Competition aggression of inter college sportsperson was 38.36 and 38.30 respectively. Whereas the pre-competition variance of Inter-Collegiate Aggression 35.82 and post-competition aggression was 48.97. When statistical technique t-test was applied it was found that 't' value of anxiety of inter-collegiate sportsperson was 0.06 respectively, which was less than the table value of 2.04. Thus it was not significant at 0.05 level of significance.
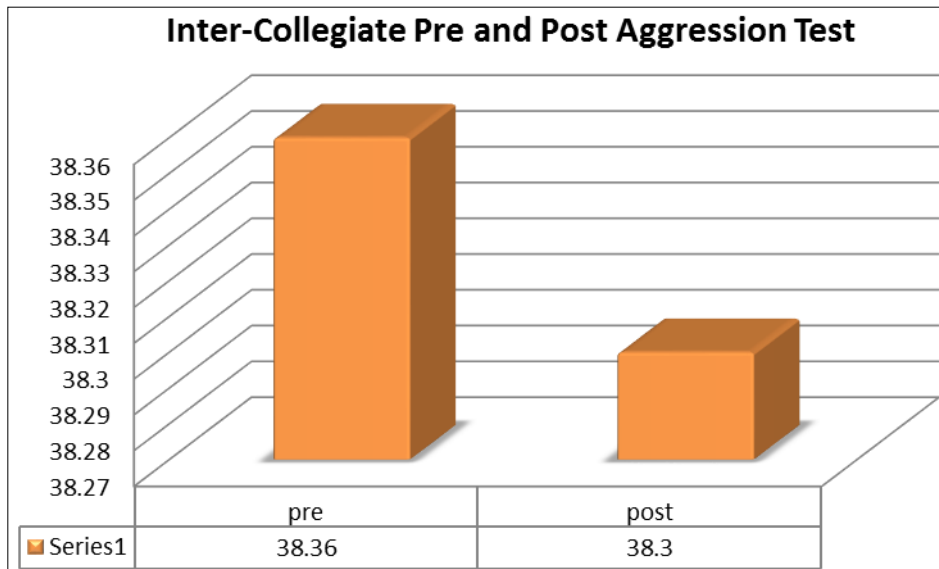

Fig 3.3: The Mean difference between the Pre test and Post test of Inter-University level Sportsperson on Aggression

Table 3.4: Comparison of Aggression of Inter-University Sportsperson

Inter-University Aggression test	Mean	Variance	Observation	df	't' value
Pre-competition	39.13	20.74	30	29	0.66
Post-competition	39.93	27.58	30		

The table 3.4 stated the mean scores of pre Competition and post Competition aggression of inter university Cricket players was 39.13 and 39.93 respectively. Whereas the pre-competition variance of Inter-Collegiate Aggression 20.74 and post-competition aggression was 27.58. When statistical technique t-test was applied it was found that 't' value of inter-collegiate cricket level player's anxiety was 0.66 respectively, which was less than the table value of 2.04. This reveals that it was not significant at 0.05 level of significance.
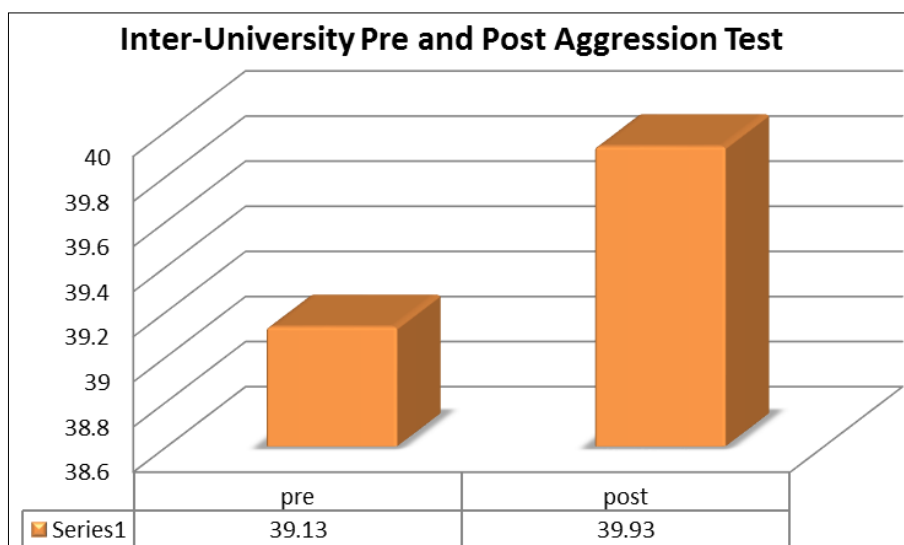

Fig 3.4: The Mean difference between the Pre test and Post test of Inter-University level Sportsperson on Aggression

Table 3.5: Comparison of Anxiety among Inter Collegiate and Inter University Sportsperson

Level of player	Pre-test of Anxiety	Post-test of Anxiety	Variance	df	t value
Inter collegiate	42.80	47.80	65.26	29	-1.90
Inter University	49.66	50.40	27.88		-0.48

Not significant at .05 level of significance
t<.05=2.04

The table 3.5 depicts the comparison of anxiety among inter-collegiate and inter-university sportsperson. The pre and post anxiety mean of inter-collegiate were 42.80 and 47.80; whereas the pre and post anxiety mean of inter-university were 49.66 and 50.40 respectively. The 't' value in case of inter-collegiate was 1.90 which was comparatively high than the 't' value of inter-university level sportsperson as 0.48 respectively. Thus it showed that the anxiety was found higher in inter-collegiate level sportsperson as compared to inter-university level sportsperson.
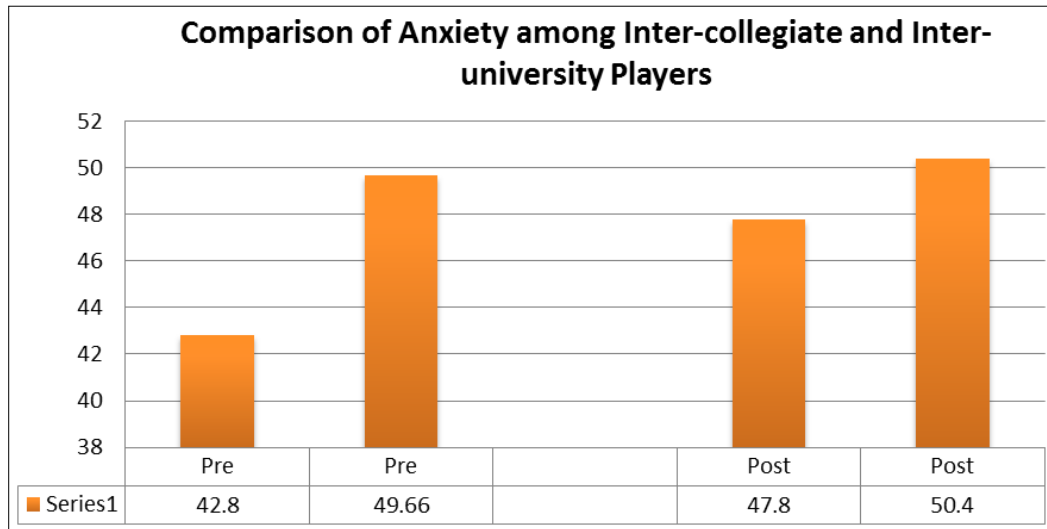

Fig 3.5: Comparison of Anxiety among Inter-collegiate and Inter- university Sportsperson

Table 3.6: Comparison of Aggression among Inter-collegiate and Inter- university Sportsperson

Level of player	Pre-test of Aggression	Post-test of Aggression	Variance	df	t value
Inter collegiate	38.36	38.30	35.82	29	0.06
Inter University	39.13	39.93	20.74		-0.66

Not significant at 0.05 level of significance
t<.05=2.04

The table 3.6 shows the comparison of aggression among inter-collegiate and inter-university level players. The pre and post aggression mean of inter-collegiate were 38.36 and 38.30; whereas the pre and post aggression mean of inter-university were 39.13 and 39.93 respectively. The 't' value in case of inter-collegiate was 0.06 which was comparatively low than the 't' value of inter-university level players as 0.66 respectively. Thus it showed that the aggression was found higher in inter-university level players as compared to inter-collegiate level players.
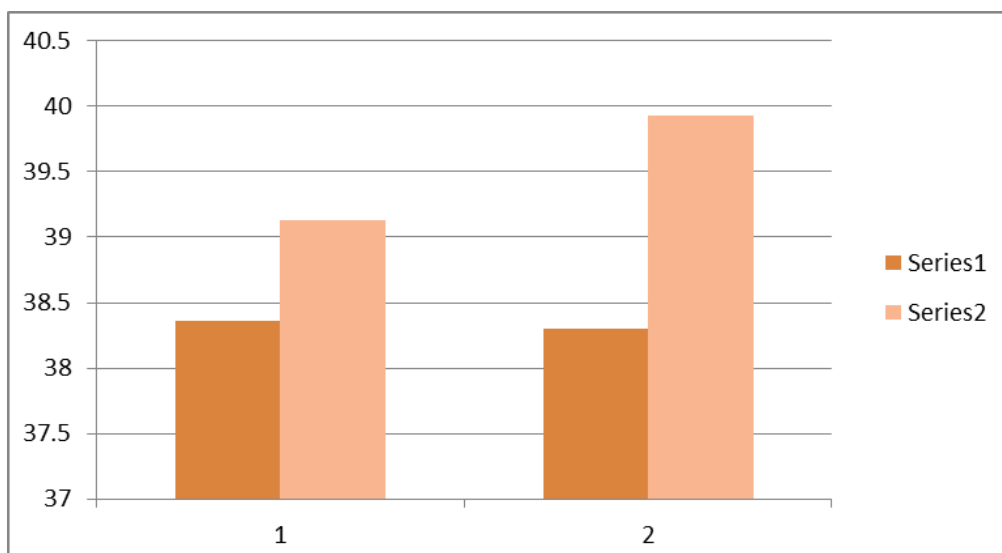

Fig 3.6: Comparison of Aggression among Inter-collegiate and Inter- university Sportsperson

Discussion and Conclusion

The findings pertaining to the study resolved significant difference of anxiety and aggression among inter-collegiate and inter-university sportsperson. It was found that the anxiety was higher in inter-collegiate level players as compared to inter-university level sportsperson. Whereas the aggression was found high in inter-university level sportsperson as compared to the inter-collegiate level sportsperson.

The anxiety among inter-collegiate and inter-university level sportsperson was measured by questionnaire of M.K.Sultania whereas the aggression was measured by the questionnaire of Rajeev Lochan Bharadwaj and Mahesh Bhargava. The pre and post anxiety score of both selected level sportsperson were collected and then compared with each other to find out the difference; similarly the pre and post aggression score were collected and then compared with each other to find out the difference of aggression among the inter-collegiate and inter-university sportsperson. After the collection of pre-test score and post-test scores of anxiety and aggression of both sportsperson (inter-collegiate and inter-university sportsperson), their scores are recorded. These scores were analysis by applying the 't' test which showed a significant difference of anxiety and aggression among inter-collegiate and inter-university sportsperson.

The subjects constituted for the study were the sportsmen and have a tough and strenuous routine life.

Thus the proposed hypothesis that "there will be significant difference of pre and post anxiety and aggression among inter-collegiate and inter-university level sportsperson" has been rejected.

Under the conditions and within the limitation this chapter deals the conclusion derived from the study. The purpose of the study was to investigate the comparison of anxiety and aggression among inter-collegiate and inter-university level sportsperson. After the collection of data and analyzing the scores of the pre-tests and the post-tests of anxiety and aggression of inter-collegiate and inter-university level sportsperson were compared with each other. The result showed that the anxiety was found higher in inter-collegiate level sportsperson as compared to inter-university level sportsperson. Whereas the aggression was found higher in inter-university level sportsperson as compared to inter-collegiate level sportsperson.

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