

A Comparative Study of Mental Toughness and Aggression among the Hockey and Football Players

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Abstract – The purpose of the study was to compare the aggression and mental toughness level among male soccer and hockey players of Mysore university inter collegiate competitions were selected as subjects for this study. The age of the subjects ranged between 20-25 years. The aggression level questionnaire by P.S. Shukla and A. Kumar and mental toughness by was distributed to the players of soccer and hockey and data was collected. Statistical analysis of the data comprised of ANOVA for finding out the aggression and mental toughness level of soccer and hockey players and it shows that there is no significant difference of aggression and mental toughness level of soccer and hockey players.

Keywords: - Mental Toughness, Aggression, Hockey and Football Players.

INTRODUCTION

A sport is as old as human society and it has achieved a universal status in modern society. It now enjoys a popularity which out strips any other form of social activity; it has become an integral part of the educational process. Millions of fans follow different bordering on devotion; many participate in sports activity for the fun of it or for health and fitness. Even today sports have become the prestigious concept of every nation and sports have been subjected to various scientific investigation. Various factors have been isolated which are responsible for the excellence in sports. Apart from better training, good equipment's, proper atmosphere a factor which play an important role at the time of competition at any level in all sports is anxiety. The acquisition of new knowledge, for betterment of performance of the human organism in relation to physical motor, and physiological qualities in process of saturation to strive for still better is a million dollar question to the expert of sports. In the process they explore the field of psychology and enlist certain psychological parameters which do influences sports performance.

Human inherent dynamism implies individual towards satisfaction prerequisites to the achievement of satisfaction leading to happiness is to get into an action on the part of the individual. The needs to whom man facts, if not properly rationalized lead to uncomforness and make him to fall no psychosomatic problems and ailments including drug abuse, mental ill, health etc. also the individual gets exposed to stress in his daily endeavors, stress to accumulated

triggers a process of deterioration of one's abilities to adopt and accommodate with the day to day problems, mental toughness, depression, frustration to the task at hand. They focus on their heightened emotional arousal or become pre occupied with worry. In short certain individuals have a general tendency to perceive competitive situation as ego threatening and stressful.¹

Success and failure of an athlete depends on the blending of physical conditioning, training mental preparation and ability to perform well in under pressure and cooperation of athlete with others. So all the aspects (physical, psychological and social) are needed for athlete, if one is lacking in an aspect, it is very difficult to get success in competition. That's why the coaches must not only have the knowledge about the skills and strategies of the sports about also should be psychologically skillful.²

The word aggression comes from the Latin root *aggredi*, and (to or toward) and *gradior* (walk), literally. Then the word to walk towards or approach, to move against or to move with intent to hurt or harm. Aggressive behaviour has been associated with destructive acts, sexual attack, prejudice, speech, gentile activity, drug and alcohol addition, sports and exercise, crying, complaining, waging war, and so forth.³

Aggression is defined as the infliction of an aversive stimulus either physical verbal or gestural upon one person by another. Aggression is not an attitude but behavior and most critically it is reflected in acts

committed with the intent to injure this definition of aggression includes such wide ranging acts engaged in by athletes, coaches and / spectators as physically hitting another individual and verbal abuse.⁴

Factors investigating aggression in athletes may be external (environmental situations) or internal (motivational derives) or both, the list includes

- Environmental temperature
- Perception of opponent's intentions to aggress the athlete who perceives that an opponent is trying to inflict harm will respond in the same way.
- Fear of relation (a victim of aggression will retaliate even more aggressively)
- Structure of the game (closure the physical contact between the opponents, the greater the chance for retaliating aggression).

The study of psychology deals with the mental toughness aspect and behavior of sports person's different level. The both physical and mental of the sports persons comes under the study of mental toughness. The mental toughness is deals with the mental ability and development of sports persons. The mental toughness is common characteristics of an individual, if every player are under gone the toughness on the play. Studying on the mental toughness before the game the coaches must make sure as to what and how much his players are capable of leading the situation. In game situation was required strong mental power for winning the particular event.

Mental toughness is studying the complex behavior or the individual, the heredity and environment play an important role in the development of mental capacity, psychological study of mental toughness is studying the complex nature is play field and cropped up during the competition or before the competition sports man feels about the competitive fear anxiety, during the high level of competition with time and gain participation in competition. The conditions of competition fear and anxiety can be treated for the mental toughness.

Soccer and Hockey has become one of the most popular games in the world and of all the major games, it must also be one of the oldest games for the game from which the present one originated is generally accepted as having been played for over two thousand years in popularity has no doubt, always owned much to the fascination man finds in hitting a ball with legs and hitting the ball with stick. Today soccer and hockey is essentially team games, and has developed into a fast and highly skillful one. Psychology as a behavior science has made its contribution for improving sports performance, psychology is also concerned with the total well-being

and personal adjustment of those who are involved in sports.⁵

To realize your full potential as an athlete or performer you have to start training your mind as well as body, just as you develop physical skills and techniques you must learn to develop these sports psychology, mental skills, hence the present study to comparative the aggression and mental toughness level among hockey and soccer players.

STATEMENT OF THE PROBLEM

With all the popularity that sport is gaining and the increasing nerve racking moments that it produces. There is growing belief that, ultimately it is the mind which influences how a body has to perform. The purpose of the problem is to compare aggression and mental toughness level of Mysore University Inter Collegiate Soccer and Hockey players. Or the purpose of this study was to investigate the level of aggression and mental toughness of Mysore University inter collegiate Soccer and Hockey players.

Delimitation

- The study was delimited to inter collegiate level male players of Mysore University.
- The study was delimited to compare the aggression and mental toughness level of soccer player's questionnaire of Anand Kumar and P.S. Shukla, Allan Goldbury.
- The study was further confined to the sports like Soccer and Hockey.

Limitation

- Questionnaire research has its limitation, as there may be some bias that may come into the mind of the subject which may indicate insincere responses which in turn can disport the final results. This was considered as the limitation of the study.
- The test was administered at different points of time considering the availability of the subjects depending on the tournaments. This might affected the responses which was considered as the limitation of the study.
- At the collection of data the player's behavior and thus academic work loan were behind the control of the researcher.

HYPOTHESIS

- The Hockey and Soccer players, will be significantly different in level of aggression.

- There will be significant difference in mental toughness among Hockey and Soccer players.
- There will be significant relationship between aggression and mental toughness of each sports namely soccer and hockey players.

SIGNIFICANCE OF THE STUDY

Understanding the psychological or behavioral parts of players provide useful information and guidelines which may be helpful to coaches and athletes. Therefore, the present study should be of significance in the following ways.

- The study may determine the variations in aggression and mental toughness of players of different sports.
- The results of the study may provide useful information and guidelines to coaches and athletes regarding the behavioral characteristics of sports persons and may thus be instrumental in effective psychological preparation of players.
- This study may help the coaches to maintain the optimum aggression level during play.
- The findings of study may reveal the necessity of different remedial measures to control aggression and include mental toughness among sportsman.
- The study may help coaches in selection of the suitable activities for the players according to their level of aggressiveness and mental toughness.

REVIEWS AND RELATED LITERATURE

Stephens, Bredmefer ⁵ has shown in recent research addressing athletic aggression hastened to focus either on the moral or a motivational dimensions of aggressive behavior. The study utilizes both moral and motivational constructs to investigate aggression in young soccer participants (N=212) from 2 different age group leagues: under 12 and 14 step wise multiple regression analyses revealed that players who described themselves as more likely to aggress against an opponent also were more likely to (a) identify a larger number of teammates who would aggress in a similar situation. (b) Perceive their coach as placing greater importance on ego oriented goals, and (c) choose situations featuring pre-conventional rather than conventional moral motives as more tempting for aggressive action. These results suggests that young athletes' aggressive behavior is

related to their team's norms and coach characteristics, and player's moral motives for behavior.

S. Fourie⁶ This study investigated the components of mental toughness as reported by 131 expert coaches and 160 elite athletes from 31 sport codes. The written statements of coaches and athletes were analyzed by means of an inductive content analysis. This resulted in the identification of 12 components of mental toughness. These are, motivation level, coping skills, confidence maintenance, cognitive skill, discipline and goal-directedness, competitiveness, possession of prerequisite physical and mental requirements, team unity, preparation skills, psychological hardiness, religious convictions and ethics. The coaches regarded concentration as the most important characteristic, while the athletes regarded perseverance as most important. The coaches rated the effectiveness of coaches and sport psychologists in strengthening the characteristics of mental toughness more highly than athletes did.

METHODOLOGY

In this chapter the selection of subjects, selection of variables, selection of questionnaire, administration and the statistical techniques used for analyzing the data have been described.

Selection of the Subjects

Sixty (60) sportsmen were selected as the subjects for the study. The subjects were participants of inter collegiate competition in their respective sports. All the subjects were students of Mysore University and they are ranged between 20-25 years. The subjects were selected according to following sports groups.

Sports	Number of Subjects
Soccer	30
Hockey	30

Selection of Variables

The researcher made sincere efforts to review the related literature, held a series of discussion with experts, secondly availability of reliable and valid questionnaire was also an important consideration in directing ones inequality for the choice of variables. Considering all this facts the sports aggression, inventory, standardized by Anand Kmar and P.S. Shukla, and for mental toughness, Allan Goldbury standardize questionnaire was selected for this study. It was selected because it was standardized under

Indian condition and widely used for research in India.

ADMINISTRATION OF QUESTIONNAIRE AND COLLECTION OF DATA

The sports Aggression

Inventory was administered to each players. The directions were used by the researcher at a dictation speed to make the subjects understand about what they are exactly required to do after making sure that the subjects had clearly understand the procedure to fill up the questionnaire. They were asked to record the answer for all questions, the subjects were given enough time to answer the questionnaire. The questionnaire were taken back after it has duly completed. Though screening was made to sure that no question was left unanswered.

Purpose

To assess the aggression level among Soccer and Hockey Player.

Procedure of Administration

To ensure maximum cooperation from the subjects, the researcher had a meeting with the teams of Soccer and Hockey Player., where the subjects were oriented and explained regarding the purpose and procedure of questionnaire.

Scoring

The sports aggression inventory was consist of 25 items in which 13 items are keyed 'yes' and rest of 12 items are keyed No. The statements which are keyed 'yes' are 1, 4, 5, 6, 9, 12, 14, 16, 18, 21, 22, 24 and 25 and the statements which are keyed 'no' are 2, 3, 7, 8, 10, 11, 13, 15, 17, 19, 20 and 32.

For each correct items score was one of the maximum score may be 25 and minimum score may be 0 (zero) scores obtained by each subject on each statement was added up which represented one's total score or aggression.

The Sports Mental Toughness

Inventory was administered to each players. The directions were used by the researcher at a dictation speed to make the subjects understand about what they are exactly required to do after making sure that the subjects had clearly understand the procedure to fill up the questionnaire. They were asked to record the answer for all questions, the subjects were given enough time to answer the questionnaire. The questionnaire were taken back after it has duly completed. Though screening was made to sure that no question was left unanswered.

Purpose

To assess the mental toughness level among soccer hockey players.

Procedure of Administration

To ensure maximum cooperation from the subjects, the researcher had a meeting with the teams of soccer and hockey players, where the subjects were oriented and explained regarding the purpose and procedure of questionnaire.

The mental toughness was consists of 30 items in which 1 to 6 items are keyed rebound ability, 7 to 12 items are keyed ability to handle pressure, 13-18 items are keyed concentration ability, 19-24 items are keyed level of confidence and 25-30 items are keyed motivation.

The scoring form 26-30 indicates over all mental toughness, from 23-25 indicates, average to moderate skills in mental toughness and 22 below indicates need to start putting more time into the mental training area.

Statistical Procedure

To compare the level of aggression and mental toughness among soccer and hockey players.

Analysis of variance was used.

The significance of F ratio was stated at 0.05 level.

ANALYSIS AND INTERPRETATION OF DATA

The statistical analysis of data collected on the variables aggression and mental toughness from 60 subjects comprising soccer and hockey players of Mysore University Inter Collegiate Competitions was presented in this chapter.

To fulfill the objectives of the study, the following statistical hypothesis were framed and tested subsequently.

H1 = There was no mean difference in aggression between soccer and Hockey players

H2 = There was no mean difference in mental toughness between soccer and Hockey players

Analysis of variance was used to find out the variability among different sports groups on aggression and mental toughness significance of F-value was tested at .05 level. Post hoc test was used to compare the significance of difference in means. Values among different sport groups for each variables.

FINDINGS

The result pertaining to significant differences on aggression and mental toughness among soccer and hockey players were analyzed with the help of F-ratio. The analysis of data pertaining to this is presented in table I and table II.

Table 1
Aggression, ANOVA

Source of variance	Degree of freedom	Sum of Square	Mean sum of square	F-ratio
Between group	1	35.27	35.27	1.91
Within group	58	1069.47	18.43	

Tab F.05 (1.58) 7.12

The required F ratio for significance at .05 level with degree of freedom 1 and 58 is 7.12. To obtain "F" ratio 1.91 was less than the required value (7.12). It indicated no significant mean difference of aggression between the soccer and hockey players.

Table II
Mental Toughness, ANOVA

Source of variance	Degree of freedom	Sum of Square	Mean sum of square	F-ratio
Between group	1	2.81	2.81	0.14
Within group	58	1108.84	14.117	

Tab F.05 (1.58) 7.12

The required "F" ratio for significance at .05 level with degree of freedom 1 and 58 is 7.12. To obtain "F" ratio 0.14 was less than the required value (7.12). It indicated no significant mean difference of mental toughness between the soccer and hockey players.

DISCUSSION ON FINDINGS

The finding showed that there is no significant difference exists between the aggression and mental toughness level of soccer and hockey players.

Unlike earlier studies conducted in this field showed that there was significant difference of aggression and mental toughness level between games this study has brought a complete new concept that the aggression level hardly lays any significant role in team games. One of the reason can be that now a day's coach emphasis more on tactful strategies which can only be applied with proper concentration of mind without any psychological and physiological disturbances. It is any team either soccer and hockey games have some characteristics regarding psychological and physiological aspects, because there are example when aggression factor of the player spoils the total outcome of the result, example can be taken from team games where aggression has turned the side of the game) (1972 Munich Olympic), USA was defeated by USSR, when half won Basketball match was given up by the frustrated USA players. So this example are, eye openers for the today's generation and coaches also advised their sportsmen to keep them calm under every possible situations. So this can be the reason that there is no significant difference in aggression level of soccer and hockey players.

DISCUSSION ON HYPOTHESIS

Statistical analysis of that data comprised of ANOVA for finding out the aggression and mental toughness level of soccer and hockey players and it shows that there is no significant difference in soccer and hockey players. Thus hypothesis is rejected.

CONCLUSION

The purpose of the study was to compare the aggression and mental toughness level among male soccer and hockey players of Mysore university inter collegiate competitions were selected as subjects for this study. The age of the subjects ranged between 20-25 years. The aggression level questionnaire by P.S. Shukla and A. Kumar and mental toughness by was distributed to the players of soccer and hockey and data was collected. Statistical analysis of the data comprised of ANOVA for finding out the aggression and mental toughness level of soccer and hockey players and it shows that there is no significant difference of aggression and mental toughness level of soccer and hockey players.

RECOMMENDATIONS

In the light of the result of the study the following recommendations were made.

- 1) Similar study can be conducted by taking other individual and team sports.

- 2) Study may be conducted in finding out the aggression and mental toughness level in team and individual sports, of male and female separately.
- 3) Study may be conducted on national level players.
- 4) A study may be undertaken by comprising anxiety and performance on different games.

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