



## COMPARATIVE STUDY OF AGGRESSION AS RELATED TO PERFORMANCE IN HANDBALL PLAYERS

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### ABSTRACT :

**Background:-** The present study was conducted with a view to compare the positive and negative aggressive behavior of the members of successful and unsuccessful handball teams at various stages of competition. Aggression plays very important role in handball, for example, when the defense executes a fierce tackle, then he shows aggressiveness. To analyze aggressive behavior of the players of successful and unsuccessful teams who have lost or won by less or wide margin respectively, to explore the relationship of aggression with performance, comparing the aggressive behavior of successful and unsuccessful teams at the Round Robin League stage of the tournament.



**Methodology:-** To assess the aggressive behavior of the players of various handball teams of Inter college Tournament Physical Aggression continuum of Terry Orlick (1979) was administrated. The physical aggression continuum ranges from violent act of brutality to assertive behavior of goal achievement. For this schedule thirty four statements were prepared. The expert opinion was taken from the Penal of experts. After preparing a schedule this was applied on 14 handball teams, who have taken part in Inter College handball Tournament in Sep, 2016, the scores of the teams were recorded on six constructs of physical aggression behavior. Means, S.D and 't'-values were calculated to find out the significance of difference between different groups at various stages of competition. The degree of precision was fixed at .5 level of confidence.

**Conclusion:-** The conclusions are drawn on the basis of data that successful handball teams are significantly better on expressive aggression, instrumental aggression and assertive behavior, categories of physical aggression in comparison to unsuccessful teams. Unsuccessful teams are significantly higher on violence, destructive aggression and accidental aggression behavior categories in comparison to successful teams. The aggressive behavior of successful team is self-oriented and goal-oriented and positively related to performance. The aggressive behavior of unsuccessful team is destructive, violent and anti-human and negatively related to performance. There do not exist statistically significant differences in the aggressive behavior of successful and unsuccessful teams at Round Robin League stage at the tournament.

**KEYWORDS :** Aggression, Behavior, Handball Players.

### INTRODUCTION :

In sports aggressive behavior has positive meaning in popular culture. Aggression plays very important role in handball, for example, when the defense executes a fierce tackle, then he shows aggressiveness. On the other hand, teachers often describe trouble making or disruptive students as

aggressive. It seems that while aggressive behavior is desirable in athletes and demanded by coaches, it may be discouraged in students and prohibited by teachers. Student athletes, especially those in Junior and Senior High Schools, are constantly shifted from an environment where aggression is rewarded to an environment where aggression is punished. What both teachers and coaches must realize is that there are two types of aggressive behavior: one deserves discipline; the other deserves reinforcement.

Aggressive behavior carries numerous connotations in the sports psychology literature. In research the aggressive behavior has been explained by many research workers as Aronson (1977) describes as behavior intended to cause harm or pain. According to the instinct theory, aggressive behavior is used for protection, The drive theory states that Aggression is caused by frustration, The social learning theory probably has more implications for coaches than the first two theories. According to this theory, the cause of Aggression originates in three modeling influence, sub-culture and symbolic modeling (A. Bandura, 1976). Aggression can instigate by almost any agent in the environment. As researcher mentioned earlier, most aggressive behavior is viewed as undesirable behavior. At least one writer, however, has tried to place aggression in a positive context. Berkowitz (1962) has said that "there are probably two types to place aggression i.e. Goal and instrumental. Goal Aggression is behavior directed toward a goal; the behavior may include intent to harm someone along the way". Boxing is an example of goal aggression. Although goal aggression is not appropriate in sports such as football and Ice Hockey, some coaches teach their athletes that the end of winning justifies the means, the means can include technique intended to inflict injury on the opponent. From the literature review it is gathered that so much attention has been paid to the evaluation of aggression and benefits and demerits associated with aggressive behavior. The present study will unfold the relationship of aggressive behavior of the handball players of various colleges with the performance of their team. The study will also analyze the aggressive behavior of the members of winning and losing teams, comparing the various constructs of aggression. The study may also / provide guideline to the coaches and players regarding aggressive behavior required for optimal performance.

#### **PURPOSE AND PROCEDURE:-**

The purpose of the study was to compare the positive and negative aggressive behavior of the members of successful and unsuccessful handball teams at various stages of competition, To analyze aggressive behavior of the players of successful and unsuccessful teams who have lost or won by less or wide margin respectively, To explore the relationship of aggression with performance, comparing the aggressive behavior of successful and unsuccessful teams at the Round Robin League stage of the tournament. The process of selected a limited number of observation, individuals or cases present a particular university for the purpose of collecting the data. Schedule was organized. For this schedule thirty four statements were prepared. The expert opinion was taken from the Penal of experts. After preparing a schedule this was applied on 14 handball teams, who have taken part in Inter College handball Tournament held at Public College Samana, District Patiala Pb. in Sep, 2017

To assess the aggressive behavior of the players of various handball teams of Inter college Tournament Physical Aggression continuum of Terry Orlick (1979) was administrated. The physical aggression continuum ranges from violent act of brutality to assertive behavior of goal achievement. The continuum is presented in the following Table-I

TABLE-I

Behaviour Category	Orientation	Primary Motivation
Violence	Antihuman	To destroy another through extreme brutality or extreme force. Satisfaction in destroying others.
Destructive	Antihuman	To hurt, to inflict harm, to injure Aggression another. Satisfaction in hurting others.
Expressive	Self oriented	To make a good hit, to wipe some one Aggression out. Satisfaction in hitting rather than in hurting or destroying. Pleasure associated with the hit itself.
Instrumental Aggression	Goal Oriented	To achieve a goal or to accomplish a task. Hurtful act is the means to a goal. No intent to hurt or destroy and no satisfaction in the aggressive act itself.
Accidental	Unintentional	Injurious contact occurs by accident Aggression with no intent and no satisfaction in the act itself or in the outcome of the act.
Assertive	Goal Oriented	To achieve a goal or to accomplish a Behavior task effectively. No aggression and no intent of aggression involved. Individual's initiative provides the means to the goal. Not classified in the realm of aggression unless it involves injury, intent to injure, or both.

#### METHODOLOGY:-

The collective responses of each team during actual game play situation was recorded by the trained scorer, who were given training during the warm-up games. Whenever any of the acts falling within any of the behavior category of the physical aggression continuum was committed by any player of the teams, it was recorded on score on that particular behavior category for that team. In the end of the match, the scores in the form of act being committed on each behavior category were summed-up separately for both the teams. This way the scores of the team were recorded on six constructs of physical aggression behavior. Means, S.D., and t-values were calculated to find out the significance of difference between different groups at various stages of competition.

#### ANALYSIS OF DATA:-

Collection of data presents merely a stock of facts unless it is analyzed and interpreted properly, it cannot serve the required purpose. When different techniques of analysis are applied to these facts, these begin to speak what the investigator wants to draw out to simplified the interpretation and finding the results. In the present study, the Mean, S.D. & 't' value of Physical Aggression of successful & unsuccessful handball teams are shown in Table –II

TABLE-II

N1=N2= 13

Sr. No.	Behaviour Category	Successful Teams		Unsuccessful Teams		't' Value
		Mean	S.D.	Mean	S.D.	
1.	Violence (Anti human)	0.77	0.70	2.38	1.64	3.13*
2.	Destructive Aggression (anti human)	8.62	7.03	11.46	8.13	0.915
3.	Expressive Aggression (Self Oriented)	14.15	6.56	7.69	4.20	2.872*
4.	Instrumental Aggression (goal oriented)	81.46	24.16	60.92	20.50	2.245*
5.	Accidental Aggression (Unintentional)	1.77	1.67	2.77	1.85	1.390
6.	Assertive behaviour (goal oriented)	50.46	19.19	30.23	9.80	3.252*

\* $t'_{.05}(24) = 2.063$ 

\* Significant at .05 level of confidence.

In Table-II the comparative results of successful and unsuccessful handball teams of the study have been presented. 't' values have been calculated to find out the significance of difference between successful and unsuccessful teams on each construct of physical aggression. The unsuccessful team have been found leading on violence, destructive aggression and Accidental Aggression behavior category as compared to successful team. This difference on violence (anti human) constructs of physical aggression with 't' value 3.13 have been found statistically that the engagement of unsuccessful team in the extreme brutality act was more in comparison to the successful team which may perhaps be because of their defeat. Analysis of the result of this Table also suggests that the successful teams have scored higher on expressive aggression, instrumental aggression and assertive behavior construct of the physical aggression continuum as compared to unsuccessful teams. Interestingly, the difference between these two groups on these constructs that is expressive aggression, instrumental aggression and assertive behavior with 't' value 2.87, 2.24 and 3.25 respectively, have been found statistically significant at .05 level of confidence.

#### INTERPRETATION OF RESULT:-

On the basis of these results it can be safely concluded that the successful teams were more concerned to accomplish the task effectively and there was no intention to hurt or to engage in brutal act on their part rather their aggressive behavior was goal oriented whereas the aggressive behavior of unsuccessful team was destructive, anti-human and violence oriented. This difference in their aggressive behavior seems to be the reason of their successful and unsuccessful performance.

**TABLE-III** **N<sub>1</sub>+N<sub>2</sub>=16**  
**Mean, S.D. & 't' Values of Physical Aggression of Successful and Unsuccessful Teams, which have won or lost with wide margin respectively.**

Sr. No.	Behaviour Category	Successful Teams		Unsuccessful Teams		't' Value
		Mean	S.D.	Mean	S.D.	
1.	Violence (anti human)	0.88	0.92	1.88	1.83	1.292
2.	Destructive Aggression (anti human)	9.52	7.95	10.62	9.67	0.448
3.	Expressive Aggression (Self Oriented)	12.12	5.23	8.12	4.104	1.592
4.	Instrumental Aggression (goal oriented)	81.38	31.67	59.88	21.67	1.482
5.	Accidental Aggression (unintentional)	2.38	1.79	3	1.11	0.779
6.	Assertive behaviour (goal oriented)	51.38	21.31	33.38	10.41	2.008

$t'_{.05}(14) = 2.144$

Table-III presents the results of Aggressive behavior of successful and unsuccessful teams which have won or lost the matches by wide margin that is where the difference in their scores were more than two goals. Unsuccessful teams have registered higher means score on violence, destructive aggression and accidental aggression behavior category of physical aggression continuum which suggest that the unsuccessful teams were more involved in anti-human acts to in comparison to successful teams though these differences have not been found statistically significant. With 't' value 1.29, 0.45 and 0.78 on the other hand successful teams which have won with wider margin have registered higher mean of, 0.45 and 0.78 of expressive aggression, instrumental aggression and on assertive behavior category of physical aggression continuum. On the basis of results of this table conclusion can be drawn that Unsuccessful teams were more involved in violence and destructive act. The behavior of successful team was more goal oriented. Their engagement in accidental aggression or destructive act was either goal oriented or unintentional. Since the difference in performance between successful and unsuccessful team was clear as the results indicate.

**TABLE-IV** **N<sub>1</sub>+N<sub>2</sub>=10**  
**Mean, S.D. and t value of Physical aggression of successful and unsuccessful teams which have won or lost with narrow margin, respectively**

Sr. No.	Behaviour Category	Successful Teams		Unsuccessful Teams		't' Value
		Mean	S.D.	Mean	S.D.	
1.	Violence (Anti human)	0.8	0.4	3.2	0.74	9.523*
2.	Destructive Aggression (anti human)	9	4.99	12.86	6.11	0.963
3.	Expressive Aggression (Self Oriented)	15.8	8.30	7	4.24	1.888
4.	Instrumental Aggression (goal oriented)	79.4	23.70	62.6	19.45	1.096
5.	Accidental Aggression (unintentional)	1.2	1.47	2.4	2.58	0.808
6.	Assertive Behavior (goal oriented)	39.8	9.30	25.2	5.91	2.650*

't'<sub>.05</sub> (8) = 2.306

\* Significant at .05 level of confidence

In Table-IV results of physical aggression of successful and unsuccessful teams who won or lost with narrow margin respectively have been presented. The successful teams have registered higher mean value on expressive aggression, instrumental aggression and assertive behavior category of physical continuum with 't' value 1.89, 1.09 and 2.65 respectively. On the Assertive Behavior Category the difference between successful and unsuccessful teams have been found significant statistically at .05 level which suggests that the successful teams were more concerned in the achievement of goal or to accomplish a task effectively and there was no intention of destructive aggression involved on their part, as it does not involve intention to injure opponent.

Unsuccessful teams have recorded higher mean value on violence, destructive aggression and accidental aggression construct at physical aggression and this difference on violence construct with 't' value 9.52 has been found significant statistically which help us to hold the view that the unsuccessful team though lost with a narrow margin in less than two goals. On the basis of these results it can be concluded that the teams which were more concerned for positive play and whose aim was goal oriented or the accomplishment of a task effectively have won or have given better performance, in comparison to the teams who have engaged in negative play through violence or destructive aggression.

**TABLE-V** N<sub>1</sub>+N<sub>2</sub>=12  
**Mean, S.D. & 't' value of Physical aggression of successful and unsuccessful handball teams of Round Robin League of Inter College Tournament**

Sr. No.	Behaviour Category	Successful Teams		Unsuccessful Teams		't' Value
		Mean	S.D.	Mean	S.D.	
1.	Violence (Anti human)	.1667	.4082	1.00	1.27	1.5358
2.	Destructive Aggression (anti human)	2.8333	2.57	5.50	3.391	1.5368
3.	Expressive Aggression (Self Oriented)	11.50	6.88	7.17	5.741	1.2684
4.	Instrumental Aggression (goal oriented)	91.67	21.759	68.33	25.009	1.7729
5.	Accidental Aggression (unintentional)	1.00	1.095	2.333	1.5055	1.7546
6.	Assertive behaviour (goal oriented)	46.17	20.409	33.67	21.79	1.025

't'<sub>.05</sub> (10) = 2.228

Table-V presents the results of physical aggression of successful and unsuccessful teams of the Round Robin League. Here again the successful teams have registered higher mean score on expressive aggression, instrumental aggression and assertive behavior category in comparison to unsuccessful teams. But the difference in their scores on these variables have not been found significant statistically. On the other hand, unsuccessful teams have registered higher mean value on violence, destructive aggression and accidental aggression. Here also the differences in their scores on these variables have not been found significant statistically.

Though the difference in scores of successful and unsuccessful teams of Round Robin league of the tournament on all the six constructs of Physical Aggression continuum have not been found significant statistically yet it can be concluded that successful teams aggressive behavior was goal oriented or self-oriented whereas the aggressive behavior of unsuccessful team was more dominated by violence and destructive aggression which can be termed as anti-human.

It can be safely summed up that the physical aggression is directly related with performance level of handball teams at inter-college tournament level. The violence and destructive construct at physical aggression behavior category are negative to teams performance whereas the expressive aggression, instrumental aggression and assertive behavior category which are self-oriented and goal oriented are positive related with performance of a team. All the successful teams of this study have registered higher mean value on expressive aggression, instrumental aggression and on assertive behavior category whereas the unsuccessful teams have registered higher on violence destructive aggression and accidental aggression category of physical aggression which confirm the above said belief.

#### CONCLUSION:-

The statistical analysis was directed to find out Mean, S.D. and 't' value and to calculate the significance of differences among the groups.

**The following conclusions are drawn on the basis of data:-**

- (1) Successful handball teams are significantly better on expressive aggression, instrumental aggression and assertive behavior, categories of physical aggression in comparison to unsuccessful teams.
- (2) Unsuccessful teams are significantly higher on violence, destructive aggression and accidental aggression behavior categories in comparison to successful teams.
- (3) The aggressive behavior of successful team is self-oriented and goal-oriented and positively related to performance.
- (4) The aggressive behavior of unsuccessful team is destructive, violent and anti-human and negatively related to performance.
- (5) There do not exist statistically significant differences in the aggressive behavior of successful and unsuccessful teams at Round Robin League stage at the tournament.

**DISCUSSION:-**

No doubt the desirable athlete is often described as one who is angry, aggressive and a competitor. But the analysis of data on the physical aggression continuum spread from violence to assertive behavior showed that the engagement of the player in destructive violent and anti-human behavior has not helped the team in winning a game. On the contrary, the team who won the games displayed their aggressive behavior as self-oriented and goal-oriented, which helped them to accomplish their task.

Coaches should refrain from patching up the individuals who are anxiety prone. Team members should be oriented to adopt expressive aggression, instrumental aggression and assertive behavior as an aid to give best performance.

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