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## A study on eating disorders among male individual and team game players

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### Abstract

The purpose of the study was to evaluate eating disorders among team game and individual game players. On the basis of purposive sampling a total of 140 male players out of which 70 from individual games (wrestling, weight lifting, athletics, boxing, gymnastics, wushu, cycling, judo) and 70 from team games (basketball, cricket, volleyball, handball, hockey and football) were selected from various colleges of Delhi University, with minimum State level participation, having age range from 20 to 30 years were selected. Data on Eating disorders were collected by administering the Eating Attitude Test (EAT-26) and calculating BMI respectively. Guttman's Split half coefficient and Cronbach alpha of EAT-26 on Indian population was found to be .63 and .88 respectively. Analysis of data revealed no significant differences between male individual and team game players on eating attitudes with  $t=1.97$  at 0.05 level was 1.99. This might be due to the fact that eating disorders occurs very less prominently in males, because of high self-esteem factor and sustainability for dramatically lower body fat (Baum, 2006). But there were significant differences indicated on BMI ( $t=6.53$ ) among the two groups. This may be attributed as the body size differences have been found among athletes in different sports and games and among events within the same sports (Nande *et al.* 2009).

**Keywords:** Eating disorder, individual, team games, BMI

### Introduction

Today, in the 21<sup>st</sup> century, there is a powerful underlying belief that thinness leads to success, power, beauty and happiness (Carlton, 2009) <sup>[1]</sup>. As a result, people succumb to wrong fitness practices and abnormal eating behaviours to alter their physical shape, without proper regard for overall physical health, this dragging them towards eating disorders, which have been defined as serious psycho-physiological disturbances (Eating Disorder Foundation, 2009) <sup>[2]</sup>. Eating disorders has been defined as a serious psychological disturbances related to eating behaviour, such as extreme and unhealthy reduction of food intake or severe overeating, as well as are usually accompanied by feelings of extreme concern or distress about body shape or weight (Spearing, 2001) <sup>[7]</sup>.

It is evident from several studies that eating disorders is prevalent in sports. Smith (1980) <sup>[8]</sup> documented excessive weight loss and food aversion in young athletes. In addition, researchers have estimated that the prevalence of eating disorders to be as high as 50% for elite athletes in certain sports. On the similar context, Johnson (1994) <sup>[5, 6]</sup> stated that disordered eating has been seen in athletes of all sports.

Athletes are vulnerable to the onset of eating disorders, as may arise through the self-perceptions of the athlete as to the appearance of his or her body, increasing emphasis of coaches, trainers, stresses of competition, further the required commitments to intense sport training, with its physical demands such as weight, the dimensions of the body, physique, and percentage of body fat become increasingly important as the elusive 'competitive edge' is sought. Combined with the prospect of achievement, invariably attracts persons who are competitive, and often perfectionist by nature. Eating disorders tend to affect athletes and deteriorate their performances (Scoffier *et al.*, 2009; Fulkerson, 1999; Thompson and Sherman 1999) <sup>[3, 9, 10]</sup>.

While any sport may create an environment in which an eating disorder may arise, certain disciplines are prominent. Sports where the appearance (gymnastics, diving, swimming, and figure skating) of the athlete is judged (Johnson *et al.*, 1999) <sup>[5, 6]</sup>, sports with a specific weight orientation (Wrestling, judo, weight lifting) (Tiemeyer, 2008; Thiel *et al.*, 2007) <sup>[11]</sup>

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that the athlete must meet, are the activities that most likely to breed eating disorders.

Since many players contain similar behaviors to those with eating disorders, there has also been an increase in interest in whether players are at a risk for eating disorders. Hence, an attempt was made through this study to evaluate eating disorders among male individual and team game players.

### Objectives and Hypothesis of the study

Keeping in mind the need of the study and after extensively reviewing the literature with the consult of the guide and the experts in the field following objectives were set for the study:

1. To study eating disorders among male individual game players
2. To study eating disorders among male team game players.
3. To compare eating disorders between male individual and team game players.
4. To study body composition of male individual and team game players.

### Considering the objectives of the study, it was hypothesized that

1. There would be no differences between male individual and team game players on eating disorders.
2. Further there would be a significant difference on body mass index (BMI) of male individual and team game players.

### Procedure and Methodology

For the purpose of the study a total of one Hundred forty male players from various colleges of Delhi University, with minimum State level participation, having age range from 20 to 30 years were selected. Out of 140 selected subjects 70 were belonging to team games (Basketball, Cricket, Football, Handball, Hockey and Volleyball) and rest 70 subjects were of individual games (wrestling, weight lifting, athletics, boxing, gymnastics, wushu, cycling, judo) Eating Attitudes Test (EAT-26) of Garner, Olmsted, Bohr and Garfinkel (1982) [4], consisting of three items namely dieting, oral control and bulimia & food preoccupation was used to measure the eating disorders and for body mass index height and weight of the subjects were measured by using a standard anthropometric rod and portable weighing machine. The obtained data was analyzed by computing descriptive statistics and 't' test.

### Results and Discussions

For the analysis of data, reliability was established using split-half and Cronbach alpha. Further, descriptive statistics followed by independent 't' test for comparison were used, the results revealed that:

**Table 1:** Reliability of eating attitude test on Indian population

Eating attitude test (Eat-26)	
Guttman split half co-efficient	0.63
Cronbach' alpha	0.88

Table no. 1 indicates the Reliability statistics of eating attitude test, which shows that the value of Guttman's Split half coefficient was found to be 0.63 and Cronbach alpha was 0.88 on Indian population that was acceptable as per the Kirkendall norms.

**Table 2:** Descriptive statistics and t-values of eating disorders variables and body mass index (BMI) of individual and team game players

Variables	Individual games (N=70)		Team games (N=70)		T
	Mean	SD	Mean	SD	
Dieting	4.99	0.62	4.41	0.98	4.09
Oral Control	5.06	0.53	4.89	0.92	1.34
Bulimia	5.41	0.49	5.40	0.87	0.11
Eating Attitude	15.46	1.27	14.70	2.56	1.97
Body Mass Index (BMI)	22.54	2.49	20.34	1.25	6.53*

It may be observed from table 2 that in subscale of dieting which evaluates pathological avoidance of fattening foods and pre-occupation with thinness the individual game players were having mean score of 4.99 with 0.62 as compared to their team game counterparts having mean score of 4.41 with SD 0.98. Similarly, on subscale of oral control that deals with the degree of self-control overeating, individual game players were having mean score of 5.06 with SD 0.53 as compared to team game players having mean value of 4.89 with SD 0.92. Both individual (M±SD=5.41±0.49) and team (M±SD=5.40±0.87) game players were having almost similar tendencies to binge and purge as measured by subscale bulimia of eating attitude.

On the measure of disordered eating attitudes behaviour, the individual game players were having mean score of 15.46 and SD 1.27, whereas, team game players were having less mean score of 14.70 with SD 2.56. Hence, individual game players indicated little maladaptive attitudes and behaviour as compared to their team game counterparts. Although, both groups shown normal eating attitudes and behavior, So far, body mass index is concerned individual game players were having higher value of body mass index (M±SD=22.54±2.49) as compared to team game players (M±SD=20.34±1.25).

The table also reveals that there were no significant differences between individual and team game players on Dieting, Oral Control, Bulimia and Food Preoccupation parameters, as the calculated 't' value of 4.09, 1.34 and 0.11 respectively were not found to be statistically significant. Similarly, individual and team game players did not differ significantly on eating attitude (total scores) as the 't' value of 1.97 was also not found to be significant at .05 level that was less than the required table value of 1.99 and in which individual game players showed more inclinations toward eating disorders as compared to team game players.

There was significant differences between individual and team game players on Body mass index (BMI) parameter, as the calculated 't' value of 6.53 was found to be statistically significant at .05 level that was greater than required table value of 1.99 and in which game players showed more body mass index (BMI) as compared to team game players.

### Discussion and Findings

It has been observed from the findings that Male individual and team game players differed significantly in their body mass index (BMI). In which individual game players were having higher BMI as compared to their team game counterparts. This may be attributed as the body size differences have been found among athletes in different sports and games and among events within the same sports. Further combat sports demand strength which comes from muscle size and therefore increasing mass (Marshall, 2009)

and its seldom the case with sports and non-combat individual sports in which athletes of greater mass are drawn to the sports.

Further male individual and team game players did not show significant differences in dieting, oral control, bulimia as well as eating attitudes. This might be due to the fact that eating disorders occurs very less prominently in males, because of high self-esteem factor and sustainability for dramatically lower body fat, this was the reason that the male team and individual game players have rated low in eating disordered attitude, with almost no significant differences in the mean values of team and individual game players on eating attitude test, Which ultimately proved to the insignificant difference between them. Hence, the hypothesis pertaining to eating disorders differences between male individual and team game players and body mass index (BMI) were accepted.

### Conclusions

In the light of the findings and limitations of the present study the following conclusions were drawn.

1. Male individual and team game players were having almost similar eating disorders on dieting, oral control, and bulimia and eating attitudes.
2. Male individual game players were having greater body mass index (BMI) as compared to their team game counterparts.
3. Both male individual and team game players were having normal body mass index (BMI).
4. Majority of the athletes were also having normal eating behaviors.

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